The Good Character in German-Speaking Children and Adolescents: Assessment, Association with Life Satisfaction and Role in Specific Life-Domains

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Dedicated to my parents, Anneliese and Walter, who taught me to be honest and loyal, and to my beloved wife, Claudia, who teaches me every day to be optimistic.

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Abstract

This cumulative doctoral dissertation is located in the field of the study of individual differences with a focus on psychological assessment and a main focus on positive psychology. To study important positive psychological variables in German-speaking samples, this thesis adapted the *Values in Action Inventory of Strengths for Youth (VIA-Youth)* and the *Students' Life Satisfaction Scale (SLSS)* to the German language. Furthermore, to understand the role of the good character in German-speaking children and adolescents in more detail, two important specific life-domains (i.e., romantic relationships, schools) were studied. Four empirical papers were presented that examined 10 to 17 year-old children and adolescents. The results indicated that the adapted measures (German VIA-Youth, German SLSS) were reliable and valid. Furthermore, character strengths were found to play a significant role in adolescent partner selection. Honesty, humor, and love were the preferred character strengths in an ideal partner, whereas, hope, religiousness, honesty, and fairness showed the most substantial assortative mating. Character strengths were predictive of mates' life satisfaction. The mates' own character strengths have been found as the best predictors of the own life satisfaction, with love, zest, gratitude, and hope as the most substantial predictors. Furthermore, specific partner strengths and the couple similarity in specific character strengths have been found as predictive for the partner's satisfaction as well. Classroom behavior that was directly related to school success was partly predicted by specific character strengths (e.g., perseverance, love of learning, prudence). Furthermore, character strengths were found as positively related with satisfaction with school experiences as well as with academic self-efficacy. All in all, this thesis showed both the reliable and valid assessment of positive psychological constructs as well as the significant role of the good character in important life-domains in German-speaking children and adolescents.

Zusammenfassung

Diese kumulative Doktorarbeit ist im Bereich der Differentiellen Psychologie und der psychologischen Diagnostik mit besonderem Fokus auf Positiver Psychologie einzuordnen. Um wichtige Variablen der Positiven Psychologie (Charakterstärken, Lebenszufriedenheit) auch im deutschsprachigen Raum untersuchbar und auch international vergleichbar zu machen, wurde im Rahmen dieser Doktorarbeit das *Values in Action Inventory of Strengths for Youth (VIA-Youth)* und die *Students' Life Satisfaction Scale (SLSS)* ins Deutsche adaptiert. Weiterhin, um die Rolle vom guten Charakter bei deutschsprachigen Kindern und Jugendlichen besser zu verstehen, wurden zwei wichtige Lebensbereiche (romantische Beziehungen, Schule) genauer betrachtet. Präsentiert werden vier empirische Arbeiten, die Kinder und Jugendliche im Alter von 10 bis 17 Jahren untersuchten. Die Ergebnisse zeigten, dass die ins Deutsche adaptierten Messinstrumente (German VIA-Youth, German SLSS) als reliabel und valide bezeichnet werden können. Weiterhin zeigte sich, dass Charakterstärken bereits eine Rolle bei der jugendlichen Partnerwahl spielten. So waren Ehrlichkeit, Humor und Bindungsfähigkeit die bevorzugten Charakterstärken in einem Idealpartner und Hoffnung, Religiosität, Ehrlichkeit und Fairness zeigten deutliches Assortative Mating. Ferner hingen Charakterstärken auch mit der Zufriedenheit der Partner innerhalb einer Partnerschaft zusammen. Die substantiellsten Prädiktoren der Lebenszufriedenheit waren die eigenen Charakterstärken; hier besonders Bindungsfähigkeit, Tatendrang, Dankbarkeit und Hoffnung. Allerdings konnten darüber hinaus auch Effekte für einige Partnerstärken und die Paarähnlichkeit in einigen Charakterstärken ermittelt werden. Das Verhalten im Klassenzimmer sowie der damit direkt zusammenhängende Schulerfolg im Sinne von Schulnoten konnte teils mit Charakterstärken (z.B. Ausdauer, Liebe zum Lernen, Vorsicht) erklärt werden. Weiterhin standen Charakterstärken im positiven Zusammenhang mit der Zufriedenheit mit Schulerfahrungen und schulbezogenen Selbstwirksamkeitsüberzeugungen. Alles in allem hat diese Doktorarbeit zeigen können, dass, neben der reliablen Erfassung von positiv psychologischen Konzepten, diese auch eine bedeutsame Rolle in wichtigen Lebensbereichen von Kindern und Jugendlichen spielen.

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General Introduction

The present doctoral dissertation is mainly located in the field of the study of individual differences with both (1) a focus on psychological assessment, and (2) a major focus on a relatively new field in empirical psychology – called *positive psychology* (Seligman & Csikszentmihalyi, 2000). This thesis will present findings on the role of interindividual differences in important predictors (i.e., character strengths) and outcomes (e.g., global life satisfaction) relevant for a fulfilling, satisfying life for 10 to 17 year-old children and adolescents. This age group (starting with 10 year-olds) was selected, as the present thesis was interested in participants' self-reports on different variables, and thus used psychometric measures that required a certain degree of reading capability. Until now, research on this topic focused more on adults than on younger people, but there is a need to expand it to children and adolescents, because important life experiences stem from this period of life.

To study this in the German-speaking area, there was a need for sophisticated measures, for both predictors as well as criteria of a fulfilling, satisfied life. The first two empirical articles of this thesis (i.e., parts I and II) deal with the adaptation of such measures. But, because one goal of positive psychology is to help young people realizing their full potentials (Peterson, 2006), it is important to understand their lives in several significant life-domains. So, the last two empirical articles of this thesis focus on important life areas, or more specifically, on the role of the good character in adolescent romantic relationships and the role of school children's good character for diverse outcomes at school (i.e., parts III and IV).

To introduce the reader to the general background of this thesis, the first section will start with an introduction to the field of positive psychology, character strengths and life satisfaction. This will be followed by an overview of the current knowledge in this specific field. Then the research questions for this thesis will be presented in detail, followed by the

four empirical papers (i.e., part I to IV) that build the core section of this thesis. A general discussion of this thesis builds the final section. In the following I will start explaining the theoretical background of this work (e.g., Weber & Ruch, 2009).

Theoretical background - What is positive psychology?

The term *positive psychology* has already a long tradition, as it was already used by Maslow (1954), a prominent representative of humanistic psychology (cf. Rammsayer, 2005). Contrary to the more or less pessimistic perspectives of psycho-analytical or learning-theoretical approaches, humanistic psychology defined individuals in a more optimistic way, for example, as possessing the potential to grow in a positive way (Rammsayer, 2005). Since World War II the dominance of negative topics has been very manifest in psychology, and investigated mostly negative aspects (Peterson, 2006) – with a good reason, as it was needed to understand and treat psychological disorders caused by traumatic experiences during the war. In the meantime, aspects that lead to a fulfilled and happy life became more of interest.

The *modern* positive psychology – grounded in 1998 by Martin E. P. Seligman, the former president of the American Psychological Association (APA) – has existed now for more than a decade. Positive psychology serves as an umbrella term for theories and research with respect to traits and conditions that make life most worth living (Peterson, 2006). More specifically, positive psychology wants to complete the traditional psychology investigating topics that were up to now under-investigated. Seligman and Csikszentmihalyi (2000) described three fundaments of positive psychology. There are on the subjective level (1) *positive experiences* (experienced in the past, the present or the future). On level of the individual (2) *positive traits* (e.g., virtues, character strengths, talents) are of interest. On the level of groups (3) *positive institutions* (e.g., families, schools, businesses, communities, societies) are the topic of research (cf. Peterson, 2006). Furthermore, Seligman (2002) distinguished between three categories of positive experiences. In more detail, (1) past-orientated subjective experiences are, for example, contentment, satisfaction, and pride. (2)

Future-oriented subjective experiences are, for example, optimism, hope, and trust, and (3) present-orientated subjective experiences are, for example, flow and happiness. Positive institutions define the framework of institutions that allow flourishing and growing (e.g., families, living environments, schools, media or companies). Following Peterson (2006), positive institutions facilitate the development and display of positive traits, which in turn facilitate positive subjective experiences. Summing up, positive psychology studies over the whole life span those aspects that make life most worth living in a serious, hardheaded, dispassionate, and empirical way (Peterson, 2006). Furthermore, positive psychology is seen to be as a descriptive (and not prescriptive) science investigating associations between enabling conditions, human strengths, institutions, and their outcomes (Seligman & Csikszentmihalyi, 2000). Locating such a science on a map, Peterson (2006) argued that "positive psychology resides somewhere in that part of the human landscape that is metaphorically north of neutral" (p. 4).

Positive psychology was criticized by Lazarus (2003), who issued whether *positive psychology movement have legs*? Lazarus speculated that this new field might vanish quickly, like many popular trends or fads. But the best answer to Lazarus' skepticism has been given by the considerable scientific output during recent years (e.g., articles, books, journals, scientific societies etc.). Based on this output, positive psychology can still be called an active, flourishing field, but clearly, still under-represented compared to the remaining psychological research. Myers (2010), searching in psychological abstracts, reported this unbalanced distribution in the psychological literature. Since 1887, there have been, for example, 14.889 papers on anger, 93.371 papers on anxiety, and 120.897 papers on depression. However, on the positive side of the spectrum, at the moment, only 1.789 papers are available on positive emotion of joy, 5.764 on happiness, and 6.255 dealt with life satisfaction. Searching in the Internet, an exploratory global search using the platform Google (2011, Oct 27, 4.51p.m.) resulted in 10.100.000 search results for "social psychology" and in

7.800.000 search results for “clinical psychology”. On the other hand 604.000 results were found for “character strengths”, 1.930.000 search results for the term “positive psychology”, and 4.480.000 results for “good character”. Against the background that positive psychology has a much shorter tradition – compared to the other fields – this is a respectable search result.

During the past 13 years, the field of positive psychology has expanded obviously. Although only with a short tradition, there was already enough material for a *Handbook of Positive Psychology* (Snyder & Lopez, 2002), followed in 2009 by a comprehensive *Encyclopedia of Positive Psychology* (Lopez, 2009a,b). As Positive Psychology is an empirical science, the *Oxford Handbook of Methods in Positive Psychology* (Ong & Van Dulmen, 2006) presented methods in this field. Focusing on young people, *What do Children Need to Flourish*? (Moore & Lippman, 2005), the *Approaches to Positive Youth Development* (Silbereisen & Lerner, 2007), and the *Handbook of Positive Psychology in Schools* (Gilman, Huebner, & Furlong, 2009) have been published. Positive psychology has a clear potential for applied research questions, hence, books like *Positive Psychology in Practice* (Linley & Joseph, 2004), *Oxford Handbook of Positive Psychology and Work* (Linley, Harrington, & Garcea, 2010), or *Applied Positive Psychology: Improving Everyday Life, Health, Schools, Work, and Society* (Donaldson, Csikszentmihalyi, & Nakamura, 2011) were published. Additionally, several more general books on this topic were completed, like an *Introduction to Positive Psychology* (Compton, 2005), or *Positive Psychology: The Science of Happiness and Human Strengths* (Carr, 2011).

To inform also German-speaking readers Seligman’s successful book on *Authentic Happiness* was also published in the German language (Seligman, 2005), and also Auhagen (2008) presented positive psychological topics. Recently, Seligman (2011) presented his new theory in *Flourish: A Visionary New Understanding of Happiness and Well-Being*. This list of references is just an incomplete selection of a flourishing market on books and research on

positive psychology, but it shows positive psychology as an active science. Also international, peer-reviewed journals, such as, *Applied Psychology: Health and Well-Being*, *Journal of Happiness Studies*, *Journal of Positive Psychology, The International Journal of Wellbeing*, and *The Journal of Student Wellbeing* publish research on positive psychology from different areas and in different age groups.

Another evidence for this rapidly growing field is the development of organizations of researchers and practitioner. In addition to the *European Network for Positive Psychology (ENPP)*, the *International Positive Psychology Association (IPPA)* has been in existence since 2008, and it has recently established a student division, the *Students of the International Positive Psychology Association (SIPPA)*. Beyond these international associations, nation-based positive psychology organizations have also emerged. Examples include the *Australian Positive Psychology Association,* the *Centre for Applied Positive Psychology* (in U.K.), the *Centre for Confidence and Well-Being* (in Scotland), the *Czech Positive Psychology Centre*, the *Global Chinese Positive Psychology Association,* the *Hellenic Association of Positive Psychology*, the *Italian Society of Positive Psychology*, the *Japan Positive Psychology Association,* the *L'Association Francaise et Francophone de Psychologie Positive*, and the *New Zealand Association of Positive Psychology*.

The Values in Action (VIA) classification of the *good character*

As this thesis mainly focuses on positive psychology in young people, it has a strong association to positive youth development. With respect to positive youth development, the Mayerson Foundation arose in the year 2000 to develop conceptual and empirical means to address the question of what good character means and how to assess it (Peterson, 2006). Under the lead of Christopher Peterson and Martin E. P. Seligman (2004), a project started identifying a model of the good character and resulted in the *Values in Action (VIA) Classification of Strengths* (Peterson & Seligman, 2004). Their model focuses on what is right about individuals with special interest in character strengths and their contribution to

optimal development (Park & Peterson, 2006a). As already mentioned, positive psychology defines positive traits as one important pillar, which is located on the individual level (Seligman & Csikszentmihalyi, 2000). As those positive traits (i.e., character strengths) build the core of this thesis, these relatively new concepts will be introduced now.

Peterson and Seligman (2004) developed with their VIA classification of the good character a catalogue of 24 different character strengths organized under six broader, and more abstract universal core virtues (Dahlsgaard, Peterson, & Seligman, 2005). They described their *Character strengths and virtues: A handbook and classification* as a *Manual of the Sanities* (Peterson & Seligman, 2004) focusing on human strengths in research, instead of focusing on disorders (Peterson & Seligman, 2004), and being therefore the opposite of the *DSM* (e.g., American Psychiatric Association, 1994). Describing the good character, Peterson and Seligman (2004) distinguished between three hierarchical levels of the good character, namely *virtues* (i.e., abstract core characteristics, defined by philosophers and religious leaders) at the highest level, *character strengths* (i.e., manifest, assessable mechanism and processes that lead to or exemplify the virtues), and *situational themes* (i.e., specific habits, that help people in specific situations to use their character strengths) at the lowest level. Peterson (2006) described the process of how they selected a first group of possible human strengths. They screened diverse sources that possibly included candidates for character strengths (e.g., psychiatric literature, texts on youth development, character education, religion, philosophy, but also popular songs, greeting cards, bumper stickers, obituaries and testimonials, mottoes and credos, Tarot cards, the profiles of Pokémon characters etc.; Peterson, 2006). For the final decision on whether the selected possible candidates were included in the final classification, Peterson and Seligman (2004) developed several criteria that character strengths need to fulfill. Table 1 summarizes these criteria (cf. Peterson & Park, 2011; Peterson & Seligman, 2004).

Sometimes, two further criteria were mentioned, namely (1) its *ubiquity* (i.e., is

Table 1. *Catalogue of Criteria for a Character Strength (cf. Peterson & Park, 2011, p. 52; Peterson & Seligman, 2004)*

Criteria		Description
1.	Fulfilling	Contributes to individual fulfillment, satisfaction, and happiness broadly construed
2.	Morally valued	Is valued in its own right and not for tangible outcomes it may produce
3.	Does not diminish others	Elevates other who witness it, producing admiration, not jealousy
4.	Non-felicitous opposite	Has obvious antonyms that are „negative“
5.	Trait-like	Is an individual difference with demonstrable generality and stability
6.	Distinctiveness	Is *not* redundant (conceptually or empirically) with other character strengths
7.	Paragons	Is strikingly embodied in some individuals
8.	Prodigies	Is precociously shown by some children or youth
9.	Selective absence	Is missing altogether in some individuals
10.	Has enabling Institutions	Is the deliberate target of societal practices and rituals that try to cultivate it

widely recognized across cultures), and (2) is *measurable* (i.e., has been successfully measured by researchers as an individual difference) (e.g., Peterson & Park, 2011). Table 2 presents the current, not empirically derived VIA classification of 24 character strengths (incl. synonyms) under six broader virtues that were identified in different cultures and nations as desired and worthwhile characteristics (Peterson & Seligman, 2004). Table 2 shows that three to five character strengths were classified under the universal postulated virtues of wisdom and knowledge, courage, humanity, justice, temperance, and transcendence (e.g., Dahlsgaard et al., 2005; Peterson & Seligman, 2004). Character strengths are seen as the inner determinants of a good life (e.g., satisfied life). Character strengths are unipolar – from *not at all* existing to *existing* (e.g., Peterson, 2006).

Park, Peterson, and Seligman (2004) asked whether there might be a problem when individuals show extremely high scores in character strengths. Empirical results showed that

Table 2. *VIA Classification of Strengths (Peterson & Seligman, 2004)*

Wisdom and Knowledge
Creativity [originality, ingenuity]
Curiosity [interest, novelty-seeking, openness to experience]
Judgment & Open-Mindedness [critical thinking]
Love of Learning
Perspective [wisdom]
Courage
Bravery [valor]
Perseverance [persistence, industriousness]
Honesty [authenticity, integrity]
Zest [vitality, enthusiasm, vigor, energy]
Humanity
Capacity to Love and Be Loved; short: Love
Kindness [generosity, nurturance, care, compassion, altruistic love, "niceness"]
Social Intelligence [emotional intelligence, personal intelligence]
Justice
Teamwork [citizenship, social responsibility, loyalty]
Fairness
Leadership
Temperance
Forgiveness & Mercy
Modesty & Humility
Prudence
Self-Regulation [self-control]
Transcendence
Appreciation of Beauty and Excellence [awe, wonder, elevation]; short: Beauty
Gratitude
Hope [optimism, future-mindedness, future orientation]
Humor [playfulness]
Religiousness & Spirituality [faith, purpose]

extremely high scores in character strengths were in line with linear increases in life satisfaction (Park, Peterson, & Seligman, 2004), hence, extremely high scores in curiosity,

gratitude or love will not lead to a decrease in life satisfaction.

Although 24 different character strengths are included in the VIA classification, individuals can be high on one strength but low on others (Peterson, 2006). Furthermore, character strengths are per definition seen as trait-like characteristics, but they were *not* seen as fixed or based in immutable biogenetic characteristics (Peterson, 2006), which is important when thinking about intervention studies. With respect to young people, Park and Peterson (2006a) defined the good character as a core characteristic of moral competence of children and adolescents. Moral competence is seen as one crucial competence in positive youth development, defined as "a youth's ability to assess and respond to the ethical, affective, or social-justice dimensions of a situation" (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004, p. 105). According to Park and Peterson (2006a) the good character helps young people to know the good, but also to desire to do the good.

Development of character strengths. The development of character strengths is quite unclear at the moment. First results on the heritability of character strengths (Steger, Hicks, Kashdan, Krueger, & Bouchard, 2007) showed that there is a genetic influence on the good character, but also open space for environmental influences (e.g., non-shared environment, like friends or school etc., but also different parenting practices within the family etc.). Ensuring conditions that help children developing positively (i.e., to grow and to flourish) might be a needed basis for a positive developmental process (Park, 2004). When parents detect indicators of signature strengths in their children (i.e., character strengths that are very typical for them), it is thought that they should foster those strengths, instead of trying to remediate weaknesses in their children (Seligman, 2002). Individuals develop approximately three to seven of those signature strengths in life. Without supporting empirical data, Seligman (2002) postulated that the first six years are very crucial in character shaping. Compared to the ability of a newborn to learn each language, children are

hypothesized to also have the general capacity to build each of the character strengths as well (Seligman, 2002).

Park (2004) mentioned some further points that might impact the development of character strengths, namely, for example, good and close relationships to peers and family. But character strengths might also play a significant role with respect to a close relationship to a (first) romantic partner, but there is only little research on, for example, partner selection in young people (Collins, Welsh, & Furman, 2009). As romantic relationships are important for adolescents (e.g., Bodenmann, 2003) there is a need to study the role of the good character regarding such institutions.

Good parenting and positive role models might foster the development of a good character (Park, 2004). Peterson (2006) asked the question of how parents encourage desired behaviors and discourage undesired behaviors? Peterson summarizes that *authoritarian* parents are firm, punitive, and emotionally cold. *Permissive* parents are loving, but lax. *Authoritative* parents involve negotiation in the daily life, and they set their children limits, but give explanations while doing this. Additionally, they encourage independence in their children. Peterson (2006) argued further that the consequences of an authoritarian style are unhappy, dependent, and submissive children. The permissive style leads to children that are likely to be outgoing and sociable, but also immature, impatient, and aggressive. Finally, the authoritative style produce children, who tend to be friendly, cooperative, socially responsible, and self-reliant (cf. Peterson, 2006).

Additionally, school might be an important institution in character development, because educational outcomes also affect life as a whole (Peterson, 2006). However, the reverse effect may also be of interest: What is the role of a good character at school? Children who possess a good character are assumed to experience school in a more positive way compared to others, and consequently, pass it more successfully.

At an empirical basis, character strengths are identifiable already in early life. Park

and Peterson (2006b) used the *strengths content analysis* where parents' descriptions of their 3-9 year-old children were analyzed with respect to words that are seen as descriptors for the character strengths. Results suggested that at least three character strengths could be identified for each child on average. "If it is possible to speak of a typical child, as seen by her parents, the typical child is one who is loving, kind, creative, humorous and curious. Infrequently mentioned strengths – e.g., authenticity, gratitude, modesty, forgiveness, and open-mindedness – fit with theoretical speculation and common sense that some strengths of character require psychosocial maturation to be evident" (Peterson, 2006, p. 152; Peterson & Seligman, 2004). Are there specific character strengths more common in youth than in adults? Park and Peterson (2006a) reported hope, teamwork, and zest as relatively more common in young people compared to adults. On the other hand beauty, honesty, leadership, and open-mindedness were more common among adults (Park & Peterson, 2006a).

Assessment of character strengths. Doubters might argue that the assessment of positive characteristics is too much affected by, for example, social desirability. The answer is that "human goodness and excellence are as authentic (as "real") as distress and disease" (Peterson, 2006, p. 139), where it has been become normal to use psychometric assessments for diagnoses. Hence, for the assessment of the 24 character strengths from the VIA classification (Peterson & Seligman, 2004) several measurements are available at the moment. The *Values in Action - Inventory of Strengths (VIA-IS)* is a 240-item self-report measurement assessing 24 character strengths among adults (Peterson, Park, & Seligman, 2005a; for German VIA-IS see Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010). Furthermore, the *Values in Action - Structured Interview of Strengths* (*VIA-SI*; Peterson, 2003) is a structured interview form that focuses on whether an adult person displays a specific strength or not. Schmid (2007) presented the first supporting empirical evidence for the VIA-SI in German-speaking participants. The *Brief Strengths Test* (*BST*; Peterson, 2004), as a 24-item short measure of the character strengths (one item per strength), is available for

research purposes. The *Values in Action Inventory of Strengths for Youth* (*VIA-Youth;* Park & Peterson, 2006a) is a questionnaire that measures the degree to which respondents endorse items reflecting the character strengths (Park & Peterson, 2006a). It has been developed for 10 to 17 year-old participants located in the English-speaking language area, as a self-report measure, consisting of 198 items (1/3 reverse scored) utilizing a 5-point Likert scale (1 = *not like me at all* to 5 = *very much like me*), which lasts on average 45 minutes (Park & Peterson, 2006a). Twenty-four scores can be yielded by averaging the seven to nine items that comprise each of the 24 character strengths. Table 3 presents item examples for all 24 character strengths scales.

Table 3. *Item Examples of the VIA-Youth*

Item examples
Creativity: I like to think of different ways to solve problems.
Curiosity: I don't have many questions about things. (r)
Open-mindedness: I always listen to different opinions before I make up my mind.
Love of Learning: I am excited when I learn something new.
Perspective: Before my friends make an important decision, they often ask my opinion.
Bravery: I stick up for other kids who are being treated unfairly.
Perseverance: I keep at my homework until I am done with it.
Honesty: I tell the truth, even if it gets me in trouble.
Zest: I am always excited about whatever I do.
Love: I share my feelings with my friends or family.
Kindness: I often do nice things for others without being asked.
Social Intelligence: In most social situations, I talk and behave the right way.
Teamwork: I listen to others in our group when we make decisions.
Fairness: Even when my team is losing, I play fair.
Leadership: When people in my group do not agree, I can't get them to work together. (r)

(Table continues)

Table 3 (continued)

Item examples
Forgiveness: I can still be friends with people who were mean to me, if they apologize.
Modesty: If I have done something good, I tell everyone about it. (r)
Prudence: Before I do things, I always think about consequences.
Self-Regulation: Even when I get really angry, I can control myself.
Beauty: I love art, music, dance, or theater.
Gratitude: I can find many things to be thankful for in my life.
Hope: I believe that things will always work out no matter how difficult they seem now.
Humor: I rarely joke with others. (r)
Religiousness: I often feel that someone "up there" in heaven watches over me.

Note. (r) = reverse scored item.

Life satisfaction

Studying life satisfaction already among young people (i.e., children and adolescents) seems to be important, as according to Gilman and Huebner (2003) global life satisfaction is defined as an overall appraisal of the quality of life. Therefore, positive psychology focuses on satisfaction with life as a whole (e.g., Proctor, Linley, & Maltby, 2009) as a very relevant outcome. Furthermore, life satisfaction can be seen as an important indicator of how children and adolescents judge their lives day by day with all its consequences, as life satisfaction is not an *epiphenomenon* but rather associated with other crucial outcomes, like depression (e.g., Gilman & Huebner, 2003). From the perspective of positive psychology, all factors that contribute to psychological well-being in addition to those that contribute to mental disorders have to be studied (Gilman & Huebner, 2003) to get the full spectrum of information. Against the background of positive youth development, it is important to understand the factors in young people that lead youth to a flourishing, satisfied life, as the development of depressive symptoms in early life cannot be the goal of a successful start in life.

The concept of global life satisfaction has a relatively long history. According to

Diener, Lucas, and Oishi (2002), philosophers like Bentham (1789/1948) can be seen in some ways as pioneers in the field of subjective well-being (SWB), as Bentham postulated that the absence of pain and the presence of pleasure would lead to a good life. Investigating this idea empirically, Bradburn (1969) found positive affect and negative affect as two distinct predictors of psychological well-being. Later, using different measures, Andrews and Withey (1976) established positive affect, negative affect, and life satisfaction as potent predictors of SWB. All three components have been found as empirically distinguishable from each other and thus should be investigated individually (e.g., Huebner, 1991a, studying young people; Lucas, Diener, & Suh, 1996, studying adults). Research on SWB has increased dramatically since the middle of the 1980s. Diener et al. (2002) argued that a reason for such a growth in research on this topic might be related to the health and wealth of the western world. Post-materialistic societies allow for studying the good aspects in life (Diener et al., 2002). Summarizing research on SWB over several decades, Diener, Suh, Lucas, and Smith (1999) concluded that "a happy person is blessed with a positive temperament, tends to look on the bright side of things, and does not ruminate excessively about bad events, and is living in an economically developed society, has social confidants, and possesses resources for making progress toward valued goals" (p. 295). Diener et al. (1999) described SWB as a tripartite construct composed of emotional and cognitive aspects (see Table 4).

Table 4 shows that on the emotional level pleasant and unpleasant affect were distinguished, and on the cognitive level satisfaction with life. Furthermore, Diener et al. (1999) differentiate between global and domain-specific satisfactions (e.g., work-related, health-related etc.) to understand life satisfaction in all of its facets. This doctoral dissertation focuses mainly on global life satisfaction. According to Diener, Emmons, Larsen, and Griffin (1985) global life satisfaction is defined as a cognitive, judgmental process of ones own life. Cognitive "judgments of satisfaction are dependent upon a comparison of one's circumstances with what is thought to be an appropriate standard. It is important to point out

that the judgment of how satisfied people are with their present state of affairs is based on a comparison with a standard which each individual sets for him or herself; it is not externally imposed" (Diener et al, 1985, p. 71).

Table 4. *Components of Subjective Well-Being (Diener et al., 1999, p. 277)*

Pleasant affect	*Unpleasant affect*	*Life satisfaction*	*Domain satisfaction*
Joy	Guilt and shame	Desire to change life	Work
Elation	Sadness	Satisfaction with current life	Family
Contentment	Anxiety and worry	Satisfaction with past	Leisure
Pride	Anger	Satisfaction with future	Health
Affection	Stress	Significant others' views of one's life	Finances
Happiness	Depression		Self
Ecstasy	Envy		One's group

Assessment of life satisfaction. For the assessment of global life satisfaction (i.e., satisfaction with life as a whole) in adults Diener et al. (1985) presented the *Satisfaction with Life Scale* (*SWLS*) as a multi-item measure of life satisfaction as a cognitive-judgmental process. Inspired by Diener's work, Huebner (1991b) developed also a multi-item measure on global life satisfaction for 8 to 18 year-old children and adolescents. His *Students' Life Satisfaction Scale* (*SLSS*; Huebner, 1991b) is composed of seven items (two of them reverse coded) utilizing a 6-point-Likert-style answer format (from 1 = *strongly disagree* to 6 = *strongly agree*). Furthermore, for the assessment of domain-specific satisfaction, Huebner (1994) developed the *Multidimensional Students' Life Satisfaction Scale (MSLSS)* that focuses on the domains of family life, friendships, school experiences, the self, and living environment. A shortened form of this measure, where each of the five domains are represented as a single item, was presented by Seligson, Huebner, and Valois (2003), called

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). All in all, much is known about research using the SWLS, but less is known using the SLSS (e.g., Proctor et al., 2009). This thesis will mainly focus on the *Students' Life Satisfaction Scale* (*SLSS;* Huebner, 1991b).

What is known? Current findings

This section will summarize the empirical evidence that is known about research utilizing the VIA-Youth (Park & Peterson, 2006a) measuring character strengths. Furthermore, empirical evidence for the SLSS (Huebner, 1991b) measuring global life satisfaction will be presented with respect to psychometrics, and its associations to demographics, and personality characteristics. As the idea of measuring character strengths in young people (compared to research on adults) is quite in its beginnings, *only little empirical evidence* was available at the moment.

VIA-Youth

Psychometrics. For comparisons of the psychometric properties of the *VIA-Youth* (i.e., M, SD, Alpha, test-retest correlation) two samples (US: Park & Peterson, 2006a; South Africa: Van Eeden et al., 2008) were available that used the current form of the VIA-Youth (i.e., 198 items, 1/3 inverted, 7-9 items per scale). Recently, Gimenez, Hervas, and Vazquez (2010) came up with data on SWB using a Spanish adaptation of the VIA-Youth, but without reporting any information on psychometrics. While reading the following results, it is important to keep in mind that the US and the South African sample used the same English VIA-Youth form. All reported *means* were above the scale midpoint of 3, which indicates that all of these components of a good character were identifiable in children and adolescents from different parts of the world (cf. Park & Peterson, 2006a; Van Eeden et al., 2008). Averaged means were numerically higher in South Africa (averaged $M = 3.70$), followed by the US sample (averaged $M = 3.58$). Moreover, Park and Peterson (2006a) found humor, gratitude, teamwork, creativity, love, and hope as more common among youth (with means

from 4.02 to 3.71), and honesty, beauty, forgiveness, self-regulation, and prudence as less common among youth (with means from 3.36 to 3.29). *Standard deviations* were numerically higher in US data (averaged *SD* = .76), followed by the South African sample (averaged *SD* = .60). Consequently, the *alpha coefficients* were numerically higher in the US sample (averaged α = .81), followed by the South African sample (averaged α = .72) (cf. Park & Peterson, 2006a; Van Eeden et al., 2008). Park and Peterson (2006a) reported *test-retest correlations* for a six- months interval of between .46 (teamwork) and .71 (religiousness) with a median of .58 (these stability results were based on two different versions of the VIA-Youth, i.e., an earlier one and the current one with 50% item overlap).

Correlations with demographics. Park and Peterson (2006a) found that girls were more likely than boys to report higher scores in beauty, fairness, kindness, and perspective (effect sizes around .08). Correlations with *ethnic background* of participants showed that higher scores in religiousness were related to non-white (compared with white) participants (effect size .10). Relationships between age and character strengths were found for most of the character strengths, that is, the younger the participants the higher the scores (effect sizes around .08), when comparing 5th graders with 8th graders (Park & Peterson, 2006a). Furthermore, Park and Peterson (2006a) correlated the rank ordered character strengths of different groups. While comparing girls and boys as well as none-white and white participants they found correlations of .81, respectively. Comparing ranks of 5th graders with 8th graders, they found a correlation of .82.

Convergent validity. Park and Peterson (2006a) reported results for *convergent validity*, that is, a self-teacher agreement using the current form of the VIA-Youth (198 items) for self-reports, and a short form (24 items) for teacher-ratings of the targets. The convergences were between .14 (open-mindedness; bravery) and .33 (gratitude) with a median of .22. Furthermore, Park and Peterson (2006a) asked participants 6 months before filling in the current VIA-Youth (198 items) to fill in a short form (like the teachers).

They reported convergences of between .18 (teamwork) and .55 (beauty) with a median of .35.

Factorial structure. Although the VIA classification was not empirically developed (Peterson & Seligman, 2004), the empirical structure of the 24 character strengths was of interest. Hence, examining the *factorial structure* of the VIA-Youth scales, Gillham et al. (2011), Park and Peterson (2006a) as well as Van Eeden et al. (2008) presented results of factor analyses, but they were inconsistent. Recently, Gillham et al. (2011) obtained a meaningful oblique-rotated five-factor solution that grouped intellectual strengths, leadership strengths, other-directed strengths, temperance strengths, and transcendence strengths. Park and Peterson (2006a) reported an oblique-rotated four-factor solution (i.e., intellectual strengths, other-directed strengths, temperance strengths, and theological strengths), and Van Eeden et al. (2008) reported a different oblique rotated five-factor solution (without interpreting the factors). As the VIA classification is an approach still in progress (e.g., Peterson, 2006), such analyses might help in identifying possible redundancies. But, as the VIA classification is interested in the plurality of the good character, studies on the level of 24 character strengths are the favored ones at the moment.

Subjective well-being (SWB). One very important outcome in human life – and for that also in childhood and adolescence – is to live a satisfied life. For that reason, character strengths were investigated in relation to global life satisfaction. Zest, love, gratitude, and hope were consistently found as numerically highest associated with measures of global life satisfaction (i.e., Gimenez, Hervas, & Vazquez, 2010; Park & Peterson, 2006a; Van Eeden et al., 2008). This is in line with research in adults, although curiosity has been found as an additional substantial predictor for global life satisfaction (e.g., Park, Peterson, & Seligman, 2004; Peterson, Ruch, Beermann, Park, & Seligman, 2007; Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010). Furthermore, Park and Peterson (2006a) investigated how parental character strengths predict the life satisfaction of their children. Strongest predictors

were parents' gratitude, hope, love, and zest (effect sizes around .02). Furthermore, parental self-regulation was associated with children's life satisfaction (effect size = .04; Park & Peterson, 2006a). This result suggested that self-regulated parents create a stable environment for their children, one in which they are somewhat more likely to lead a satisfied life (Park & Peterson, 2006a).

Focusing on the affective components of SWB, Van Eeden et al. (2008) investigated positive affect (PA), negative affect (NA), and affect balance (AB) (using the Affectometer 2, AFM, short form, 20 Items; Kammann & Flett, 1983) in relation to the 24 character strengths. They found zest (.46), hope (.44), love (.37), and gratitude (.35), followed by perseverance (.33) and social intelligence (.32) as positively correlated with PA. The remaining correlations were between .22 (honesty) and .29 (perspective). No information was given for curiosity, kindness, fairness, forgiveness, modesty, beauty, and humor. All reported correlations between character strengths and NA were negative, but there was no information given for curiosity, love of learning, open-mindedness, creativity, bravery, leadership, self-regulation, forgiveness, modesty, beauty, and humor. Zest (-.31), love (-.30), gratitude (-.29), and hope (-.29) showed the highest negative relationships. The remaining reported coefficients were between -.19 (perspective, prudence) and -.25 (social intelligence). Affect balance (difference between PA and NA) was positively correlated with character strengths. No information was given for curiosity, forgiveness, modesty, and beauty. Zest (.45), hope (.43), love (.40), and gratitude (.38) showed the highest correlations, followed by social intelligence (.34), perseverance (.31), and religiousness (.30). The other coefficients varied between .19 (humor) and .29 (teamwork).

Ego strengths, ego resilience. Van Eeden et al. (2008) found positive correlations between character strengths and ego-resilience (measured by the Ego-Resiliency Scale, ERS, 14 items, unidimensional; Block & Kremen, 1996). No information was given for modesty. Zest (.46), hope (.39), perspective (.38), social intelligence (.36), open-mindedness,

perseverance, leadership (all .35), love of learning (.33), creativity, bravery (both .32), and teamwork (.31) were most strongly correlated with ego-resilience. The remaining reported coefficients varied between .21 (forgiveness, beauty) and .29 (kindness).

School success. Park and Peterson (2006a, referring to unpublished data) correlated the 24 character strengths of 5th and 8th graders with participants' grade point averages (GPA) and found perseverance (effect size = .09), honesty (effect size = .09), fairness (effect size = .04), gratitude (effect size = .04), hope (effect size = .04), and perspective (effect size = .03) as positively associated with school success.

Social skills and popularity. Park and Peterson (2006a) investigated the relationship of character strengths of 5th and 8th graders with different social skills measured by the Social Skills Rating System (SSRS; Gresham & Elliot, 1990). They found *cooperation* correlated with fairness, gratitude, honesty, social intelligence, teamwork, and perspective. *Assertion* was correlated with leadership and zest. *Empathy* showed relationships with kindness and love, and finally, *self-control* was correlated with perseverance, prudence, and self-regulation. All the above-mentioned relationships showed correlations with an averaged effect size around of .20 (all correlations were above .45).

Another result reported by Park and Peterson (2006a) showed that the degree of popularity in school (rated by homeroom teacher) was positively correlated with leadership, fairness, self-regulation, prudence, and forgiveness with effect sizes around of .05. (Note: These results were based on an earlier form of the VIA-Youth.)

Big Five. Investigating the overlap between an established model on personality structure (i.e., Big Five) and narrower traits like character strengths, associations between those concepts were of interest. Park and Peterson (2006a) analyzed the relationship between character strengths and Big Five traits (measure: Goldberg, 1999) of 5th and 8th graders. They found Neuroticism as correlated with hope, zest, and self-regulation (negative correlations; effect sizes around .20). Extraversion was correlated with humor and leadership

(positive correlations, effect sizes around .20). Openness to experiences showed relationships with creativity, love of learning, open-mindedness, and curiosity (positive correlations, effect sizes around .25). Conscientiousness was correlated with perseverance, prudence, honesty, gratitude, and fairness (positive correlations, effect sizes around .25). Finally, agreeableness showed relationships with kindness, love, social intelligence, teamwork, and perspective (positive correlations, effect sizes around .25). Not surprisingly, there are some associations between specific character strengths and specific Big Five dimensions, but effect sizes indicated that overlap is medium at best.

Health. Analyzing components of health in relation to character strengths, Van Eeden et al. (2008) correlated the scores of the 24 character strengths with the total score of the General Health Questionnaire (GHQ, 28 items; Goldberg & Hiller, 1979) that includes aspects of somatic symptoms, anxiety and insomnia, social dysfunction, and depression. They reported only five correlation coefficients. Zest, love (both -.26), gratitude, hope (both -.21), and religiousness (-.19) showed correlations with this health report. Furthermore, Guse and Eracleous (2011) compared the means of character strengths of 21 healthy adolescents with means of 21 adolescents that survived childhood cancer, and found no significant differences in means. Clearly, further studies are needed that investigate the role of character strengths in health.

Psychopathy and other negative life circumstances. Park and Peterson (2006a) reported results of an earlier form of the VIA-Youth with some evidence for relationships with psychopathological variables (Child Behavior Checklist, CBCL; Achenbach & Edelbrock, 1987). They found the higher the scores of hope, zest, and leadership the lower the scores of *internalized problem behavior* (effect size around .20). Furthermore, they found that higher scores in perseverance, honesty, prudence, and love were in line with lower scores in *externalized problem behavior* (effect sizes around of .20).

Kaltenstein (2010) compared character strengths of 34 adolescents with a history of

out-of-home placements (i.e., such a placement ”occurs after child welfare workers have concluded that the child’s parents are either unable or unwilling to care for their children“; Kaltenstein, 2010, p. 4) with a larger community sample (N = 306). Kaltenstein reported mean differences for eight character strengths (i.e., bravery, hope, humor, gratitude, industry, judgment, kindness, and zest) showing higher scores in the community sample.

SLSS

Psychometrics and demographics. Huebner, Suldo, and Valois (2005) reported that the mean score of the SLSS typically shows substantial variability, but also typically falls in the positive area of the 6-point answer scale (e.g., M = 4.21, SD = 1.14; Suldo & Huebner, 2004). Coefficient Alpha for this unidimensional scale has been found as varying between α = 73 to α = .86 (e.g., Huebner et al., 2005). Correlations between SLSS and demographic variables, like age and gender, were typically found as small in magnitude (e.g., Huebner et al., 2005).

Personality. As one main aim, this thesis focuses on the association between specific positive traits (i.e., character strengths) and global life satisfaction. Prior research in adults, but also in children and adolescents, found broad, abstract personality dimensions as associated with global life satisfaction. DeNeve and Cooper (1998) reported Neuroticism as the strongest predictor for adult life satisfaction, happiness, and negative affect. Extraversion and Agreeableness were reported as predictors for positive affect. For young people, Huebner (1991c; see also Gilman & Huebner, 2003) reported that higher life satisfaction was in line with higher self-esteem, internal locus of control, Extraversion, and lower anxiety, and Neuroticism. Additionally, for example, Heaven (1989) found lower Psychoticism, and Fogle, Huebner, and Laughlin (2002) found higher social self-efficacy as predictive for higher life satisfaction, respectively. Results indicate that well adjusted individuals are more likely to score higher on life satisfaction. For that reason, studying life satisfaction in the context of the good character seems to be a meaningful combination.

What is *not* known? Research questions

Peterson and Seligman (2004) postulated the VIA classification to be a framework of broadly confirmed (i.e., in different religious and philosophical approaches from different cultures) human strengths and virtues (Dahlsgaard et al., 2005). Before this thesis started, all (published) work on this topic in young people was restricted to studies using the English version of the VIA-Youth (e.g., Park & Peterson, 2006a; Van Eeden et al., 2008). Furthermore, a lot is known about adult global life satisfaction and its correlates. Less is known on global life satisfaction in young people (e.g., Proctor et al., 2009) and still less is known about this topic across cultures. Lewis (2009) reported that the German language is ranked 10th highest out of 172 of the spoken languages in the world with in total of around 90.000.000 first-language speakers, and thus, represents a large population for research purposes. In this line of argumentation, we decided that it might be meaningful to adapt promising and/or well established measures of the concepts of interest for this thesis to German language, instead of developing new ones, because one main goal of positive psychology – especially within the VIA classification – was to create a tool for researchers to use *a common vocabulary* when talking about the same thing (i.e., character strengths; Peterson, 2006). Furthermore, the role of the good character in different young peoples' life-domains is still under-researched.

Research Questions of the Present Thesis

The purposes of the present thesis were twofold, as it tried on the one hand to provide reliable measures on character strengths and global life satisfaction for research with German-speaking individuals. On the other hand, the thesis studied the role of the good character in children's and adolescents' lives, and in doing this, examined two important, specific life-domains of young people – romantic relationships and schools (e.g., Bodenmann, 2003; Larson, 2000). Hence, with the knowledge of the current, above-summarized results in mostly English-speaking samples, this thesis mainly aimed, beside of

the replication of specific results, at adding new knowledge to the field investigating the role of the good character in the German-speaking group as another cultural group in the western world.

Therefore, in a first paper the adaptation and the psychometric quality, reliability, and initial validity of the *German Values in Action Inventory of Strengths for Youth* (German VIA-Youth; Ruch, Weber, Park, & Peterson, 2011) was studied. The second paper describes the adaptation and the psychometric quality, reliability, and initial validation of the *German version of the Students' Life Satisfaction Scale* (German SLSS; Weber, Ruch, & Huebner, in press).

As there was a substantial interest studying the role of the good character (among other variables) in important life-domains, adolescent romantic relationships and schooling experiences were selected for this doctoral dissertation. Hence, paper three describes *the role of the good character in adolescent romantic relationships* (Weber & Ruch, in press), and paper four reports *whether the good character matters at school* (Weber & Ruch, 2012). The main aims of the empirical papers will be described in more detail in the following four parts (i.e., I to IV).

Part I

The first part of this thesis was aimed at developing one needed *basis* for the following studies. It was the adaptation of the Values in Action Inventory of Strengths for Youth (VIA-Youth, Park & Peterson, 2006a) for its use with German-speaking youth. First, we translated the questionnaire to German, back-translated it, and compared it with the original version. After some minor changes, a first sample was collected to test initially the item and scale characteristics. After doing this, more data were collected in several studies for answering the following questions: (1) How are the psychometric characteristics (e.g., *M*, *SD*, internal consistencies, item-total-correlations) of the *final* German VIA-Youth? (2) Are there age and gender effects in character strengths in German-speaking participants? (3)

What stability of the good character will be found in German-speaking participants? (4) How is the convergence between self-reported and parent-reported character strengths among German-speaking participants? Therefore, a parent-rating form of the German VIA-Youth was developed. As Gillham et al. (2011) recently reported a meaningful empirical structure of the 24 VIA-Youth scales, there was (5) an interest in the empirical structure of the 24 character strengths scales in the German-speaking sample, but the investigation of the plurality of the good character still was the main aim. As the good character is per definition (Peterson & Seligman, 2004) seen as an enabling factor for a fulfilling, satisfied life, the (6) question was whether and to what extent character strengths predict positive outcomes, like global life satisfaction or general self-efficacy? This leads me directly to the second part of this thesis.

Part II

Generally, research on global life satisfaction in young people is really rare compared to research in adults (e.g., Proctor et al., 2009). Hence, we translated the seven-item measure (Students' Life Satisfaction Scale; Huebner, 1991b) to German, back-translated it, and compared it with the original version. After one minor change in one item, a first sample for *study one* was collected to test the item and scale characteristics. (1) Descriptive statistics, the factorial structure, internal consistency, test-retest reliability, and associations of the German SLSS with age and gender as well as with a social desirability measure were tested. Furthermore, (2) the associations between global life satisfaction and Eysenck's (Eysenck & Eysenck, 1975) three temperamental superfactors were studied testing whether comparable results could be found between this German-speaking sample and a previous reported Australian sample (e.g., Heaven, 1989).

For *study two,* a more heterogeneous sample was collected to investigate (1) further evidence for psychometric properties, factor structure, and reliability, (2) age and gender effects, and (3) mean differences across three German-speaking subsamples (i.e., Austrian,

German, Swiss). Furthermore, (4) tests for convergent validity were conducted analyzing the associations between measures of global life satisfaction and domain-specific life satisfaction (e.g., family life, friendships, school experiences).

Part III

Knowing about the important role of romantic relationships in adolescence (e.g., Bodenmann, 2003), it was additionally assumed that a good character might play a significant role in this context. There is this popular German idiom ”only the (good) character counts“ in selecting a partner. For that, there was an interest in the role of character strengths in adolescent romantic relationships as an initial study on partner selection and mates' life satisfaction. To get a first insight which character strengths count in a potential, ideal adolescent partner a measure was developed, called the *Ideal Partner Profiler* (*IPP*; Weber, 2008; see Appendix Part III), that should help in answering the first question: (1) Which of the 24 character strengths are consensually preferred in an ideal partner? Prior research has shown (mostly in adults) that personality characteristics of a selected real partner often depend on the rater's own personality characteristics, or in other words, there has been found a match in personality variables. Hence, it was also asked (2) whether non-independence (i.e., assortative mating) exists for character strengths in adolescent romantic relationships. Viewing a romantic relationship as a *positive* institution and knowing from earlier research about the predictive power of character strengths on global life satisfaction (e.g., Park & Peterson, 2006a), there was also an interest in (3) the amount of variance in mates' life satisfaction that is explained by targets' character strengths or partner's character strengths beyond the targets' character strengths. Additionally, it was tested if couples' similarity in character strengths could explain variance in mates' life satisfaction beyond both targets' and partners' character strengths.

Part IV

This last part focused on the role of children's good character at school. Answering a

question like *do character strengths matter in the classroom* would help to understand students in this achievement-driven context from the perspective of positive psychology. Furthermore, it might support further understanding of the *positive* aspects of schools as positive institutions. Assuming that a good character is needed for good, school-appropriate, and target-aimed behavior in class, and generally, asking how children behave at school, a one-dimensional, ten-item teacher-rating for the assessment of students' typical behavior in the classroom with a focus on *positive classroom behavior* was developed, the *Classroom Behavior Rating Scale* (*CBRS*; Weber, 2009; see Appendix Part IV). I assumed that school could become a positive institution. For that reason, (1) basic associations between character strengths and subjective positive experiences at school (i.e., satisfaction with school experiences, academic self-efficacy) were investigated. Such basic knowledge could build the foundation for prevention, or intervention programs in the future. It was assumed further that (2) certain more mind-related character strengths might show associations with school success, and (3) that the good character influences positive school outcomes, like good grades (i.e., objective school success), through appropriate behavior at school. Finally, as an explorative question and for that without concrete assumptions, (4) the role of character strengths was studied with respect to the change of grades from the middle of the school year to the end of the school year. Such a finding would be in line with Peterson and Park (2006) who summarizes that a good character is needed to desire the good, but also to do the right things.

In the following section of this thesis the four papers that deal with the above reported issues are presented in their latest versions. Three of them have been already published or are *in press*, and one is currently under review. For an overview:

Ruch, W., Weber, M., Park, N., & Peterson, C. (2011). Character strengths in children and adolescents: Reliability and initial validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth). *Manuscript submitted for publication*.

Weber, M., Ruch, W., & Huebner, E. S. (in press). Adaptation and initial validation of the German version of the Students' Life Satisfaction Scale (German SLSS). *European Journal of Psychological Assessment*. doi:10.1027/1015-5759/a000133

Weber, M., & Ruch, W. (in press). The role of character strengths in adolescent romantic relationships: An initial study on partner selection and mates' life satisfaction. *Journal of Adolescence*. doi:10.1016/j.adolescence.2012.06.002

Weber, M., & Ruch, W. (2012). The role of a good character in 12-year-old school children: Do character strengths matter in the classroom? *Child Indicators Research*, *5*, 317-334. doi:10.1007/s12187-011-9128-0

Part I:

Character Strengths in Children and Adolescents: Reliability and Initial Validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth)

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This part is *submitted for publication.*

Abstract

The Values in Action Inventory of Strengths for Youth (VIA-Youth) is a self-report inventory assessing 24 character strengths among people between 10 and 17 years of age. The present paper describes the adaptation and initial validation of a German version of this measure utilizing several samples (in total $N = 2{,}110$ self-reports of participants aged 10-17 years, 56.5% girls; $N = 219$ parent-reports) from Germany and Switzerland. The 24 scales yielded high reliability and exhibited stability across four months. Self-reports and parent-ratings of strengths converged well. An oblique five-factor solution was found to represent the data well. There were small age effects, and small to medium gender effects (e.g., girls scored higher on beauty and kindness). Character strengths of hope, gratitude, love, and zest correlated positively with global life satisfaction. Furthermore, most of the strengths were strong predictors of general self-efficacy. Overall, the German VIA-Youth demonstrated good psychometric properties and promising evidence for validity. The German VIA-Youth is recommended for the assessment of character strengths in German-speaking children and adolescents.

Keywords. character strengths; positive psychology; VIA-Youth; children; adolescents

Character Strengths in Children and Adolescents: Reliability and Initial Validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth)

Introduction

Positive psychology and positive youth development focus on factors that enable children and adolescents to grow and flourish (Park, 2004). One factor is *good character*. Peterson and Seligman (2004) introduced the Values in Action (VIA) classification of the good character in terms of six universal virtues and 24 character strengths. The virtues proposed are wisdom and knowledge, courage, humanity, justice, temperance, and transcendence and were identified in various writings by philosophers and spiritual leaders in China, South Asia, and the West (Peterson & Seligman, 2004). Twenty-four character strengths – defined as the processes and mechanisms that lead to or exemplify the virtues were found that fulfilled the proposed criteria that a positive, morally valued characteristic had to satisfied to be included as a character strength (e.g., it is fulfilling; it is morally valued in its own right; its display does not diminish other people; it should be trait-like; and so on; Peterson & Seligman, 2004). Table 1 summarizes the VIA classification.

Table 1 shows that each of the six core virtues is constituted by three to five character strengths. The assignment of the strengths to the virtue categories was done on theoretical grounds as opposed to empirically.

Character strengths in young people

When investigating character strengths in young people (ages 10-17), one has to answer at least two questions: (1) Are character strengths observable and distinguishable already in young people? (2) Is there an adequate measurement for the assessment of character strengths for these age groups?

To answer the first question: Park and Peterson (2006a) asked US parents for written descriptions of their children (aged 3-9). They found that the descriptions were rich in character language terminology, with the most prevalent strengths mentioned being love

Table 1. *Classification of Six Core Virtues and 24 Character Strengths*

Virtue I. Wisdom and knowledge: cognitive strengths that entail the acquisition and use of knowledge.

(1) creativity: thinking of novel and productive ways to do things

(2) curiosity: taking an interest in all of ongoing experience

(3) open-mindedness: thinking things through and examining them from all sides

(4) love of learning: mastering new skills, topics, and bodies of knowledge

(5) perspective: being able to provide wise counsel to others

Virtue II. Courage: emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal.

(6) bravery: not shrinking from threat, challenge, difficulty, or pain

(7) perseverance: finishing what one starts

(8) honesty: speaking the truth and presenting oneself in a genuine way

(9) zest: approaching life with excitement and energy

Virtue III. Humanity: interpersonal strengths that involve ‘‘tending and befriending’’ others.

(10) love: valuing close relations with others

(11) kindness: doing favors and good deeds for others

(12) social intelligence: being aware of the motives and feelings of self and others

Virtue IV. Justice: civic strengths that underlie healthy community life.

(13) teamwork: working well as member of a group or team

(14) fairness: treating all people the same according to notions of fairness and justice

(15) leadership: organizing group activities and seeing that they happen

Virtue V. Temperance: strengths that protect against excess.

(16) forgiveness: forgiving those who have done wrong

(17) modesty: letting one’s accomplishments speak for themselves

(18) prudence: being careful about one’s choices; not saying or doing things that might later be regretted

(19) self-regulation: regulating what one feels and does

Virtue VI. Transcendence: strengths that forge connections to the larger universe and provide meaning.

(20) appreciation of beauty and excellence [short: beauty]: noticing and appreciating beauty, excellence, and/or skilled performance in all domains of life

(21) gratitude: being aware of and thankful for the good things that happen

(22) hope: expecting the best and working to achieve it

(23) humor: liking to laugh and joke; bringing smiles to other people

(24) religiousness: having coherent beliefs about the higher purpose and meaning of life

(56%), kindness (38%), creativity (34%), and humor (26%). The less prevalent strengths were gratitude, modesty, forgiveness, open-mindedness, hope, appreciation of beauty (all 2%), and honesty (1%). Furthermore, mention of the character strengths of love, zest, and hope correlated with happiness of the children. Moreover, Steen, Kachorek, and Peterson (2003) discussed with more than four hundred and fifty students (aged 14-19) from different US high schools the character strengths included in the VIA classification. They were interested in whether the strengths generally make sense to adolescents, if they typically recognize strengths in their environments, if they can identify the ownership of several strengths, and what they think about the origins and development of strengths. Results showed "…that students conceptualized the strengths as existing along continua, with people exhibiting different traits to varying degrees. Although students believed that some people naturally possess more or less of a given strength, they also believed that all of them could be learned or developed" (Steen et al., 2003, p. 10).

To answer the second question: Over a three-year period, Park and Peterson (2006b) developed an inventory for young people accounting for several aspects it should fulfill. They wrote age-appropriate items (i.e., simple language, without idioms or metaphors) and tested out different item formats and phrasings representing all 24 character strengths (Peterson & Seligman, 2004). Furthermore, contexts that are important for children and adolescents were chosen for the item contents (e.g., school, family, and friends). The current inventory contains 198 items (7–9 items for each scale) using a 5-point scale from *very much like me* to *not like me at all*. The *Values in Action Inventory of Strengths for Youth* (*VIA-Youth*; Park & Peterson, 2006b) does not measure virtues by summing up the strengths theoretically assigned to a virtue to a virtue-total-score but measures 24 character strengths by averaging the items (7-9) for each scale. About one-third of the items are reverse-scored. In average it takes 45 minutes to complete the VIA-Youth. During this construction process they used the advice from teachers, developmental psychologists, and empirical evidence from earlier

versions. For that, the VIA-Youth is a self-report questionnaire for the comprehensive assessment of the 24 character strengths among children and adolescents, aged 10–17.

Park and Peterson (2006b) presented results from different US samples. They found alpha coefficients > .70 for all 24 scales. Six-month test-retest correlations ranged between .46 (teamwork) and .71 (religiousness) and showed a median of .58 across the 24 scales suggesting stability. They reported that most subscale scores were skewed but still had acceptable variability. Furthermore, analyses of demographics showed small to medium effect sizes for both gender and age effects. Girls scored somewhat higher than boys for beauty, fairness, kindness, and perspective, and that fifth graders scored higher than eight graders for most of the scales (Park & Peterson, 2006b). The English language VIA-Youth (in former and in its current form) was used in several validation studies so far. For example, Park and Peterson (2006b) found positive relationships between character strengths and popularity and social skills. Furthermore, they reported negative correlations between character strengths and both internalized as well as externalized problem behavior. Van Eeden, Wissing, Dreyer, Park, and Peterson (2008) reported for a sample of South African learners positive correlations between character strengths and both ego-resilience as well as health. These authors also investigated positive affect (PA) and negative affect (NA) in relation to character strengths, and found positive correlations between character strengths and PA, and negative correlations between character strengths and NA. Both Park and Peterson (2006b) as well as Van Eeden et al. (2008) reported positive relationships between character strengths and global life satisfaction. However, interestingly, compared to results on these associations in adult samples (e.g., Peterson, Ruch, Beermann, Park, & Seligman, 2007) only love, hope, zest, and gratitude, but not curiosity, were among the most potent predictors.

Aims of the present study

The present paper describes the steps in the adaptation of the VIA-Youth to German

language, and the validation of the German VIA-Youth, which further on will allow for the assessment of character strengths in German-speaking 10-17 year-olds. First, the results of the adaptation of the VIA-Youth (Park & Peterson, 2006b) will be evaluated with respect to psychometric characteristics (e.g., *M*, *SD*, internal consistency, item-total-correlation), and effects of age and gender. Second, as the structure of the VIA-Youth was developed theoretically, but not through factor analysis the empirical structure of the German VIA-Youth is of interest. As Gillham et al. (2011) recently came up with a five-factor solution it should be tested if this solution is replicable in German-speaking samples as well. Third, a parent-rating form will be generated. This form will be used to examine the convergent validity of the German VIA-Youth allowing the estimation of the amount of reporting bias. Also, this form will be used to see whether gender differences generalize across raters. Fourth, the stability of character strengths over a time period of four months will be investigated in terms of rank-order stability. The fifth aim is to examine the claim of Peterson and Seligman (2004) that strengths should contribute to "… various fulfillments that constitute the good life" (p. 17) and that exercising strengths enhances the likelihood of positive outcomes (e.g., subjective well-being). This will be done by attempting to replicate the findings for the US VIA-Youth (e.g., Park & Peterson, 2006b) in regard to positive relationships between character strengths and life satisfaction, and with zest, love, gratitude, and hope showing the numerically highest correlation coefficients. Finally, the sixth aim was to investigate the relationship between character strengths and self-efficacy. The concept of self-efficacy is defined as „peoples' beliefs in their capabilities to produce desired effects by their own actions" (Bandura, 1997, p. vii). As character strengths are enabling conditions that facilitate children and adolescents thriving (Park, 2004) we predict that participants that generally score higher in character strengths will report higher levels of self-efficacy. For two strengths, optimism and self-regulation, a positive relationship with self-efficacy has already been reported (Luszczynska, Gutierrez-Dona, & Schwarzer, 2005).

Method

Participants

Sample 1 consisted of 1,569 German-speaking children and adolescents (58.5% girls). Their mean age was 14.26 years (*SD* = 1.75; ranging from 10-17 years). About half of them (54.0%) attended highest level secondary school (e.g., needed for higher education like university), 39.3% attended medium level secondary school (e.g., normal learning tempo, needed for a demanding apprenticeship), and 6.7% attended other educational institutions (e.g., primary school, lowest level secondary school [i.e., reduced learning tempo, needed, for a less demanding apprenticeship as, e.g., manufacturer or in the industrial sector], apprenticeship).

For stability and validity analyses three further samples (*samples 2 to 4)* were used. *Sample 2* (self-reports; target persons) consisted of *N* = 294 Swiss participants attending secondary school (highest education level). Their mean age was 13.49 years (*SD* = 1.04) and ranged from 11 to 17 years. About half (51.0%) were male. *Sample 3* (parent sample) consisted of *N* = 219 parents of the participants of sample 2. Their mean age was 44.59 years (*SD* = 4.28; range 36-65 years) and 75.23% were female (mothers).

Sample 4 (self-reports) consisted of *N* = 247 Swiss participants. Their mean age was 11.77 years (*SD* = 0.65; age ranged from 10 to 14 years); and 53.4% were female. About half of them (78.9%) attended secondary school (highest education level), 12.2% attended secondary school (medium education level), and 8.9% attended secondary school (lowest education level).

All participants took part in the studies voluntarily. Additionally, all participants younger than 18 years provided the permission of their parents or legal guardians. None of the participants was paid for their service.

Instruments

The *Values in Action Inventory of Strengths for Youth* (*VIA-Youth*; Park & Peterson,

2006b) consists of 198 items for the self-assessment of the 24 character strengths (7-9 items per strength) included in the classification of Peterson and Seligman (2004). About one third of the items are reverse coded. The VIA-Youth uses a 5-point Likert-style format (from 1 = *not like me at all* to 5 = *very much like me*). A sample item is "I believe that things will always work out no matter how difficult they seem now" (hope).

The *parent-rating form of the VIA-Youth* is identical to the VIA-Youth but all items were rephrased for others-evaluations. A sample item is "He/She believes that things will always work out no matter how difficult they seem now" (hope). The same answer format is used only with rephrased categories (e.g., 5 = *very much like him/her*). The scales of the parent form of the German VIA-Youth showed satisfactory internal consistencies (median was = .80).

The *Students' Life Satisfaction Scale* (*SLSS*; Huebner, 1991) adapted to German by Weber, Ruch, and Huebner (in press) is a seven-item self-report measure of satisfaction with life (as a global cognitive judgment of adolescents life). Two of the items are reverse coded. It uses a 6-point answer format (from 1 = *strongly disagree* to 6 = *strongly agree*). A sample item is "I have what I want in life". The SLSS has been shown to be, in several studies across cultures, a reliable and valid measurement (e.g., Huebner, 1991; Weber et al., in press). The internal consistency (alpha coefficient) the present study was .88.

The *General Self-Efficacy Scale* (*GSE*; Schwarzer & Jerusalem, 1999**)** consists of 10 items using a 4-point Likert-style format (from 1 = *strongly disagree* to 4 = *strongly agree*). A sample item is "I can always manage to solve difficult problems if I try hard enough." The GSE had a high internal consistency in the present research (α = .89), and it has shown good psychometric properties across different studies (e.g., Luszczynska et al., 2005).

Procedure

The adaptation of the VIA-Youth. Three psychologists (all German native speakers) with good knowledge of English translated the original US-version of the VIA-Youth into

German. These translations were compared and discussed within this group. In several steps a first final version was compiled. A bilingual person familiar with the translation of psychological texts back translated this version to English. The authors of the American version provided feedback on this back translation. According to their comments, the translation was checked again, and some minor revisions were made. An initial version of the German VIA-Youth was then examined on an item by item level as described below in more detail.

Data collection. The data for sample 1 were collected in schools in German-speaking parts of Switzerland and in Germany. An informed instructor introduced all participants directly in the classrooms, where students predominantly filled in the questionnaires. In some cases participants filled in the material at home. All participants received individualized feedback on their character strengths and additional information on the meaning of each of the strengths. Data on test-retest reliability, and data on convergent validity (samples 2 and 3) were collected in one study. The target persons filled in the material twice within the period of four month and were instructed to collect one parent rating at the second testing time. They provided their parents with the set of questionnaires, a self-addressed envelope, and a sheet with standardized instructions. The instructions stated not to complete the questionnaire in the presence of the target person and after completion seal it in the envelope and send it back to the department. Data on life satisfaction, and general self-efficacy were collected in three different schools in Switzerland (sample 4). Participants filled in the set of questionnaires in the classroom setting supervised by the instructed teacher.

Results

Initial analyses

Initial item analyses with a smaller sample suggested the revision of a total of 9 of 198 items. Four items showed corrected item-total correlations (CITC) below .20, two items showed – compared to the other items of their scale – lower CITCs, and three showed higher

correlations to other scales. All 9 items were rephrased with the aim to sharpen their prototypicality for the scale. Upon retesting the revised items showed an average increase in CITCs of .11. The four items with CITCs below .20 showed an increase ranging from .11 to .31. Furthermore, experiences with classroom testing under time restrictions showed that some students overlooked the negation in the negatively keyed items. This problem was reduced by highlighting (i.e., italicizing) the negation (e.g., "I am *not* often that excited about things."). Analyses showed an average increase of .01 in CITCs for these items. Analyzing this revised version, all alpha coefficients were at least .65 and showed averaged CITCs of .47. This revised version provided the base for the results reported in this paper. Because 24 different character strengths were investigated, a corrected level of significance (i.e., .05/24 = .002) was used when interpreting the results.

Descriptive results and reliability

Means, standard deviations, skewness, kurtosis, minima, maxima, internal consistencies and means of corrected item-total correlations for each of the 24 VIA-Youth scales were computed for sample 1 (see Table 2 for selected results).

Table 2 shows that the means were numerically highest for gratitude (M = 4.11) and lowest, but still above the scale mid-point for religiousness (M = 3.26). The scales were homogenous; the median of the internal consistencies of the scales was .77 and the median of the mean CITCs was .47. Skewness and kurtosis suggested normal distributions of all 24 scales. Minima and maxima of the scales indicated nearly the full range of variability with averaged minimal and maximal scores of 1.36 and 5.00, respectively.

Effects of age and gender on 24 character strengths

Estimating effects of age and gender on strengths level Pearson correlations were computed between the 24 character strengths, and age and gender. Table 2 shows that generally the effects were small. The averaged absolute correlation with age was r = .08. For gender the effect sizes were slightly higher but also small in magnitude with averaged

Table 2. *Descriptive Statistics, Internal Consistencies, Averaged Corrected Item Total Correlations and Correlations with Age and Gender, Direct Oblimin Rotated 5-Factor Solution (Principal Component Analysis), Stability over a Period of Four Months, Comparison between Self-Reports and Parent-Ratings, and Partial Correlations Between the 24 German VIA-Youth Scales and Students' Life Satisfaction Scale (SLSS), and General Self-Efficacy Scale (GSE) (Controlled for Age and Gender)*

	Sample 1[a]											*Samples 2 and 3*			*Sample 4*[d]	
VIA-Youth scales	*M*	*SD*	α	r_{it}	*Age*	*Sex*	*C1*	*C2*	*C3*	*C4*	*C5*	$r_{tt}(4)$[b]	r_{sp}[c]	*t*[c]	*SLSS*	*GSE*
Creativity	3.60	0.61	.77	.47	-.10*	.05	.26	.10	**.67**	-.08	-.04	.72	.43	1.84	.27*	.52*
Curiosity	3.55	0.58	.74	.44	.00	.01	.01	-.02	**.83**	.03	-.12	.71	.47	-1.78	.29*	.41*
Open-mindedness	3.47	0.54	.74	.43	-.03	.04	.13	**.55**	.40	-.14	.09	.67	.27	2.70	.22*	.43*
Love of learning	3.43	0.64	.77	.48	-.08	.11*	-.11	.33	**.67**	.11	-.02	.73	.42	-3.98*	.28*	.46*
Perspective	3.70	0.49	.70	.40	.01	.13*	**.66**	.21	.19	.03	.08	.72	.42	1.60	.33*	.52*
Bravery	3.71	0.54	.74	.45	-.01	.10*	**.42**	-.05	.27	.03	.27	.68	.40	-2.15	.27*	.46*
Perseverance	3.45	0.62	.81	.50	-.24*	.06	.10	**.58**	.18	.32	-.03	.79	.48	1.80	.33*	.49*
Honesty	3.66	0.57	.81	.53	-.09*	.15*	.12	**.44**	-.02	.22	.36	.82	.39	-3.71*	.32*	.40*
Zest	3.63	0.56	.76	.47	-.17*	.07	.27	.05	.22	**.60**	-.06	.73	.45	0.03	.48*	.52*
Love	4.03	0.62	.80	.50	-.04	.19*	.38	-.05	-.17	**.67**	.07	.77	.39	-1.02	.47*	.44*
Kindness	3.99	0.53	.81	.51	-.07	.33*	.24	-.11	.21	.18	**.61**	.75	.44	3.15	.26*	.34*
Social Intelligence	3.77	0.46	.65	.35	.03	.09*	**.53**	.27	-.06	.14	.25	.69	.28	1.41	.39*	.51*

(Table continues)

Table 2 (continued)

	Sample 1[a]											*Samples 2 and 3*			*Sample 4*[d]	
VIA-Youth scales	*M*	*SD*	α	r_{it}	*Age*	*Sex*	*C1*	*C2*	*C3*	*C4*	*C5*	$r_{tt}(4)$[b]	r_{sp}[c]	*t*[c]	*SLSS*	*GSE*
Teamwork	3.96	0.50	.74	.44	-.07	.17*	.38	.20	.02	.06	**.51**	.69	.23	3.54*	.44*	.51*
Fairness	3.58	0.55	.75	.43	-.15*	.20*	-.02	.31	.17	-.06	**.62**	.74	.29	3.27*	.23*	.30*
Leadership	3.33	0.61	.81	.53	.05	-.02	**.77**	.13	.11	.00	-.22	.81	.48	0.95	.33*	.45*
Forgiveness	3.90	0.62	.81	.56	-.20*	.04	-.15	.00	.05	.24	**.59**	.67	.22	-1.08	.13	.18
Modesty	3.61	0.53	.68	.36	.01	.16*	-.03	.08	-.08	-.15	**.79**	.61	.34	1.77	.09	.10
Prudence	3.32	0.59	.74	.44	-.11*	.00	-.04	**.81**	.00	.04	.05	.70	.42	-4.41*	.30*	.45*
Self-regulation	3.41	0.60	.75	.42	-.10*	.03	.00	**.66**	-.04	.06	.32	.76	.43	2.42	.25*	.37*
Beauty	3.77	0.68	.79	.50	.00	.35*	-.05	-.19	**.68**	.07	.25	.72	.53	1.69	.14	.32*
Gratitude	4.11	0.54	.79	.50	-.08*	.07	.17	.09	.00	**.68**	.17	.72	.30	5.30*	.47*	.50*
Hope	3.85	0.56	.80	.51	-.04	-.05	.31	.29	.09	**.52**	-.18	.71	.36	3.35*	.45*	.54*
Humor	4.04	0.61	.82	.54	.07	.08	**.65**	-.42	.07	.15	.10	.76	.39	4.76*	.31*	.35*
Religiousness	3.26	1.07	.91	.70	-.22*	.01	-.33	.00	.10	**.71**	.01	.85	.70	-0.88	.11	.22*

Note. *M* = mean, *SD* = standard deviation, α = Cronbach's alpha, r_{it} = averaged corrected item-total correlation, Age = correlation with age, Sex = correlation with gender (1 = male, 2 = female). C1 to C5 = five components of the PCA. **Bold** indicates highest factor loadings of the scales. $r_{tt}(4)$ = test-retest correlation with an interval of 4 months. $_{rs}p$ = convergent correlation between self-reports and parent-ratings.
[a] N = 1,569. [b] N = 294. [c] N = 217. [d] N = 241. *$p < .002$.

absolute coefficients of $r = .10$. Perseverance, religiousness, forgiveness, zest, and fairness showed the most substantial age effects indicating a linear decrease with increasing age. Generally, girls were more likely than boys to score higher on most of the character strengths. Beauty and kindness showed medium to large effects of $d = -.76$ and $d = -.72$, respectively, followed (in descending order of difference) by small to medium effects of fairness, love, teamwork, modesty, honesty, perspective, love of learning, and bravery with medium effect sizes (Cohen's *d*s between -.41 and -.21). Social intelligence and humor showed only small effects when comparing boys and girls (with Cohen's *d*s between -.18 and -.16).

Factorial structure

A principal component analysis (PCA) was computed for the 24 scales of the German VIA-Youth to identify the factor structure. The PCA yielded five factors with eigenvalues greater than 1.00 and also the scree test suggested the retention of five factors (Eigenvalues: 8.55, 2.22, 1.72, 1.37, 1.23, 0.87 and 0.84), which were subsequently rotated using direct oblimin. Table 2 shows that most strengths were markers for one of the five main factors (median of the highest loading was .66). Only one scale (i.e., honesty) demonstrated double loadings (difference ≤ .10). The five factors explained 62.86% of the variance. The resulting factor-solution was very similar to Gillham et al. (2011) showing convergences (Tucker's phi) of .97, .97, .95, .93, and .89 for the corresponding factors. Due to the high convergence the factor labels of Gillham et al. (2011) can be used as an interim consensus. Factor 1 represented *leadership strengths* (i.e., leadership, humor, perspective, social intelligence, and bravery), factor 2 *temperance strengths* (i.e., prudence, self-regulation, perseverance, open-mindedness, and honesty, factor 3 *intellectual strengths* (i.e., curiosity, love of learning, beauty, and creativity, factor 4 *transcendence strengths* (i.e., religiousness, zest, gratitude, love, and hope), and factor 5 *other-directed strengths* (i.e., modesty, forgiveness, kindness, fairness, and teamwork). As we conducted an oblique rotation to the scales, we found moderate positive correlations among the five factors with a median of .26.

Stability

To analyze the short-term stability of the German VIA-Youth test-retest correlations (r_{tt}) were computed for each of the scales. Table 2 shows that the stability was high across the four months. The median of the retest reliabilities (r_{tt}[4]) for the 24 character strengths was .72. Scales with higher internal consistency also turned out to be more stable (R = .69).

Comparison of self-reports and parent-ratings

The self-/others-convergence was examined comparing targets' self-reports (sample 2) with parent-ratings (sample 3) of the targets by computing paired t-tests. Furthermore, Pearson correlations were computed indicating the self-parent agreement. Table 2 shows that parents rated significantly higher than target persons (self-reports) for prudence, love of learning, and honesty (with Cohen's *d*s between -.33 and -.28) and lower for gratitude, humor, teamwork, fairness, and hope (with Cohen's *d*s between .43 and .26). Correlations between self-reports and parent-reports showed a median of .41 indicating a moderate self-parent agreement. When convergence was low (<.30) then self-reports yielded higher means (and lower SDs) than the parent-ratings (e.g., teamwork, fairness).

The sample of parents was also used to add another perspective to gender differences in character strengths by analyzing also the parent-ratings under this perspective. The parents see girls primarily higher than boys in beauty (r = .32, p < .001) and kindness (r = .25, p < .001). Moreover, they assign higher scores to girls in bravery, social intelligence, perspective, teamwork, love, and fairness (showing *r*s between .23 and .15, all *p*s <.05). Thus, parent-ratings verified eight of the gender effects that were found for self-reported data. Furthermore, parents assigned girls higher scores in self-regulation (r = .17, p = .013) and boys higher scores in curiosity (r = -.22, p = .001).

Relationships between character strengths and global life satisfaction

Partial correlations (controlling for age and gender) between character strengths and global life satisfaction were computed. Table 2 shows that all correlations between 24

character strengths and global life satisfaction were positive. In more detail, zest, gratitude, love, and hope showed the most substantial correlations with *global life satisfaction* followed by teamwork, social intelligence, perspective, perseverance, leadership, honesty, humor and prudence. Modesty showed no relationship with global life satisfaction.

Relationships between character strengths and general self-efficacy

Table 2 shows partial correlations (controlled for age and gender) between character strengths and general self-efficacy. Hope, perspective, creativity, zest, teamwork, social intelligence, and gratitude showed the most substantial correlations with *general self-efficacy* (showing coefficients ≥ .50). Modesty showed no relationship with general self-efficacy.

Discussion

Statistical review

The German VIA-Youth is a reliable and valid measure of the 24 character strengths. The German VIA-Youth appeared to measure characteristics that do not change much over a short time period of four months. A current study is following students over a period of between 2-3 years (with data collections on several occasions). These data will allow testing of developmental effects on character strengths. Self-reported and parent-rated character strengths converged in the expected range with a median of .41 (for results of German VIA-IS see Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010). This convergence appears to be higher than results reported by Park and Peterson (2006b). Furthermore, coefficients were higher than reported for other personality variables (e.g., Connolly, Kavanagh, & Viswesvaran, 2007). When gender effects were identified then girls scored higher than boys in character strengths. The two strongest gender differences, beauty and kindness, were also found in the parents-rated data. Smaller gender effects were found in both self-reports and parent-ratings, namely, bravery, social intelligence, perspective, love, teamwork, and fairness. The finding that parents assigned girls higher scores in self-regulation and boys higher scores in curiosity needs to be replicated in future studies. These effects generalized

across rating methods thereby suggesting that the gender effects found were valid. Age effects were small in general.

Factorial structure

This study provides initial information on the factorial structure of the 24 German VIA-Youth scales. Like Gillham et al. (2011) we found a five-factor solution with leadership strengths, temperance strengths, intellectual strengths, other-directed strengths, and transcendence strengths. Also the marker variables were identical to the ones of the US-study. As the factors seem to be replicable, a possible next step could be working on the concepts underpinning of the factors (e.g., what exactly is the nature of transcendence strengths). Thereafter, the use of confirmatory factor analysis (e.g., Schweizer, 2010) can be considered. It should be noted that this solution is different from the one proposed by Park and Peterson (2006). Hence, further studies, also with different language versions are needed to further examine the structure and see where the redundancy in this instrument is. Also, analyses on strengths factor level might be helpful for a first data screening to get an impression of, for example, associations between broader strengths factors and other variables of interest. For a detailed data analysis we suggest the use of the full range of 24 character strengths.

Relationships between character strengths and life satisfaction

Character strengths correlated positively with global life satisfaction. Zest, love, gratitude, and hope showed the numerically highest relationships with life satisfaction. This is in line with prior results found for samples from the US (Park & Peterson, 2006b) and South Africa (Van Eeden et al., 2008). Thus, character strengths enable the good life already among children and adolescents. Compared to the study with adults (e.g., Peterson et al., 2007) only curiosity is missing from the list of potent predictors. These findings clearly show that character strengths play a significant role in the prediction of life satisfaction already in

this early stage of life and that partly other strengths are relevant for different outcome variables. Longitudinal studies are now needed to examine the directionality of these effects.

Relationships between character strengths and general self-efficacy

As expected, a notable connection between character strengths and general self-efficacy was found. While Luszczynska et al. (2005) found hope/optimism to be one important predictor of self-efficacious beliefs, the present study shows that while hope is a potent predictor a broad variety of other strengths correlated with general self-efficacy at nearly the same level. Thus, the more strength a child/adolescent has, the higher the self-efficacy beliefs.

Future research

Research is needed to gain additional validity information about the German VIA-Youth, for example, it should be studied whether the 24 character strengths have incremental predictive power regarding positive outcomes beyond the classical personality dimensions, such as Extraversion and Neuroticism. Projects are needed that will study the relationships between the 24 strengths and other important aspects of life for children and adolescents (e.g., school success, romantic relationships). Further studies are needed that investigate the influential factors that might have an impact on character strengths (e.g., parenting, organized youth activities).

Conclusions

Character strengths are reliably measurable in German-speaking samples. Beyond that psychometric stance one can argue that character strengths do matter to children and adolescents as they contribute substantially to global life satisfaction and general self-efficacy. Because of the good psychometrics and encouraging initial validity results of the German VIA-Youth, research about the good life in young German-speaking people is now possible.

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Part II:

Adaptation and Initial Validation of the German Version of the Students' Life Satisfaction Scale (German SLSS)

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Abstract

The present research describes the adaptation and initial validation of a brief measure of global life satisfaction, the Students' Life Satisfactions Scale (SLSS), for German-speaking children and adolescents, aged 10-17 years. Study one investigated the responses of 286 Swiss students (aged 12-17 years), administering paper-pencil questionnaires (e.g., Junior Eysenck Personality Questionnaire) at class on two occasions (interval 4 months). Study two investigated the responses of a heterogeneous sample composed of 3407 Austrian, German, and Swiss students (aged 10-17 years), administering questionnaires (e.g., Brief Multidimensional Students' Life Satisfaction Scale) online. The SLSS showed unidimensionality explaining approximately 60% of variance, an internal consistency coefficient of $\alpha = .88$, and a stability coefficient of .55 over a 4-month interval. Study one found a moderate association between life satisfaction and social desirability (.20), and theoretically meaningful correlations with temperamental variables (-.16 with Psychoticism; .29 with Extraversion; -.48 with Neuroticism). Study two found no gender differences, but small age effects. Differences among Austrian, German, and Swiss students were also identified. Study two found correlations between SLSS and domain-specific satisfaction (e.g., satisfaction with the self). The two studies support the usefulness of the German SLSS, and provide preliminary norms for comparison purposes for subsequent research.

Keywords. German SLSS version; life satisfaction; children; adolescents; test adaptation

Adaptation and Initial Validation of the

German Version of the Students' Life Satisfaction Scale (German SLSS)

Introduction

Over the last few decades, there has been an increasing amount of research on life satisfaction (LS) in adults as well as in children and adolescents (e.g., Diener, Suh, Lucas, & Smith, 1999; Gilman & Huebner, 2003; Proctor, Linley, & Maltby, 2009). To study the global LS of children and adolescents in German-speaking countries, there is a need for a reliable, valid, and brief measure. The present research describes the adaptation and initial validation of such a measure, the *Students' Life Satisfaction Scale* (*SLSS*; Huebner, 1991a).

LS has been included as one component of a tripartite model of subjective well-being, along with positive affect and negative affect (SWB; e.g., Andrews & Withey, 1976; Diener et al., 1999; Huebner, 1991a). Whereas positive affect and negative affect are the emotional components of SWB, LS is conceptualized as the judgmental, cognitive component (Diener, Emmons, Larsen, & Griffin, 1985). Cognitive "judgments of satisfaction are dependent upon a comparison of one's circumstances with what is thought to be an appropriate standard" (Diener et al, 1985; p.71).

Huebner (1991a) developed the SLSS, a brief self-report measure for 8-18 year-old children and adolescents for the assessment of global LS, that is, satisfaction with life as a whole. Initially the SLSS was composed of ten items, but based on item analysis it was reduced to seven items in its current form (Huebner, 1991a). Two of the seven items are reverse scored. To facilitate judgments of life overall, items were written to be domain-free in nature (e.g., "I have a good life" instead of "I have a good *family* life"). Whereas in early studies, the SLSS used a 4-point answer format from 1 = *never* to 4 = *always*, the current form uses a 6-point-answer format from 1 = *strongly disagree*, 2 = *moderately disagree*, 3 = *mildly disagree*, 4 = *mildly agree*, 5 = *moderately agree*, to 6 = *strongly agree*.

Unidimensionality of the SLSS has been reported in several studies (e.g., Dew & Huebner, 1994; Huebner, 1991a; Marques, Pais-Ribeiro, & Lopez, 2007). Furthermore, the SLSS has been found to be reliable with alpha coefficients between .82 and .86 (e.g., Dew & Huebner, 1994; Huebner, 1991a), and stable with test-retest coefficients of .76, .64, .53, and .51 across 1-2 weeks, one month, one year, and two years, respectively (Huebner, Suldo, & Valois, 2005; Marques, Pais-Ribeiro, & Lopez, 2011).

Associations between the SLSS and demographics (e.g., age, gender) have been typically found as moderate at best in magnitude (e.g., Gilman & Huebner, 2003; Huebner, 1991a). LS is distinguishable from social desirability as the reported correlations have been modest to moderate (e.g., Proctor et al., 2009). Furthermore, the SLSS was found to be associated significantly with other validated measures assessing LS, like the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS), showing convergent validity (Seligson, Huebner, & Valois, 2003).

Adolescent LS is also significantly associated with temperamental variables, like Eysenck and Eysenck's (1975) three superfactors of Psychoticism (P), Extraversion (E), and Neuroticism (N). Prior research showed moderate negative relationships between LS, and N and P, and moderate positive relationships between LS and E (e.g., Fogle, Huebner, & Laughlin, 2002; Heaven, 1989; Huebner, 1991b).

The present research

Although the SLSS shows promising psychometric properties for the assessment of global life satisfaction in young people, only the original US version (Huebner, 1991a) and a Portuguese version (Marques et al., 2007) have been published to date. The adaptation of such a useful measure to another, large language area will help making findings on LS comparable across several cultures. For that reason, the purposes of the present research were threefold: (1) adaptation of the SLSS for use with German-speaking children and adolescents (aged 10-17 years); (2) determination of the reliability, stability, and the factor structure of

the German SLSS; and (3) preliminary validation of the German SLSS. We conducted two separate studies to address these issues.

Study 1

Study 1 aimed at adapting the German SLSS, evaluating its descriptive statistics, factorial structure, internal consistency, test-retest reliability, and associations with age and gender as well as with a social desirability measure. Furthermore, correlations between the German SLSS and the temperamental superfactors of P, E, and N were considered.

Method

Participants

The sample consisted of $N = 286$ German-speaking Swiss (50.3% were males). Their mean age was 13.74 years ($SD = 1.11$) and ranged from 12 to 17 years. All participants attended secondary school (highest level).

Instruments

The *Students' Life Satisfaction Scale* (*SLSS*; Huebner, 1991a) is a seven-item measure for the self-assessment of global satisfaction with life utilizing a 6-point answer format (from 1 = *strongly disagree* to 6 = *strongly agree*). A SLSS total score is formed by averaging the seven items.

The *German short form of the Junior Eysenck Personality Questionnaire* (*J-EPQ*; Rost & Hartmann, 1993) consists of 38 items and uses a dichotomous (*yes/no*) answer format for the self-assessment of Psychoticism (8 items), Extraversion (10 items), Neuroticism (10 items), and a lie scale as an indicator of social desirability (10 items). The J-EPQ showed internal consistencies of $\alpha = .60$ for P, $\alpha = .80$ for E, $\alpha = .76$ for N, and $\alpha = .63$ for L in the present sample.

Procedure

Adaptation of the SLSS. We followed the international guidelines (e.g., Van de Vijver & Hambleton, 1996) in adapting the SLSS to the German language. In a first step,

considering construct and method bias, we ensured that there were no cultural discrepancies regarding the measured concept in general and the way of assessing it. In a second step, two psychologists (the first and second author of this paper; both German native speakers with good knowledge of English) translated the original US-version (Huebner, 1991a) into German independently. Following this, an initial version of the German SLSS was created by the first and second author with respect to ensure content validity. Considering lexical appropriateness a bilingual person (with psychological knowledge) back translated this initial version. In one case we detected a slight lexical discrepancy (i.e., item bias) within item 7 "My life is better than most kids", and we slightly modified it to "My life is better than most of my age", to be more appropriate for all age groups in German-speaking areas. The items of the final German version of the SLSS are given in Appendix A.

Data collection. Data were collected in several classes of one secondary school in the regular classroom setting (i.e., groups of 20-25 students) supervised by an instructed teacher (i.e., following standardized instructions) on two occasions with an interval of 4 months using paper-pencil questionnaires. A total of 286 of 301 invited students participated in this study, yielding a response rate of 95.02%. The reason for non-participation was mostly "absence at school because of health reasons". All students attended voluntarily, and all provided signed permission of parents or legal guardians who were informed about the study by a letter beforehand. None of the students was paid for participation.

Results

Descriptive statistics

The German SLSS (i.e., total score) showed a mean of 4.67 (SD = 0.89). A comparison with the US mean (M = 4.21, SD = 1.14; Huebner et al., 2005) yielded a difference showing a small to medium effect size (Cohen's d = .45; Cohen, 1988). The means of the items ranged from 3.76 (SD = 1.45; item 3) to 5.29 (SD = 0.94; item 5; see Table 1).

Table 1. *Means, Standard Deviations, First Unrotated Principal Component, and Test-Retest-Correlations of the German SLSS Items and Correlations Between the German SLSS Items and the Lie Scale*

	German SLSS				
Items	*M*	*SD*	*FUPC*	$r_{tt}(4)$	r_L
1. My life is going well. (SLSS 1)	4.98	1.04	.88	.44***	.19**
2. My life is just right. (SLSS 2)	4.76	1.13	.88	.44***	.17**
3. I would like to change many things in my life.[a] (SLSS 3)	3.76	1.45	.62	.47***	.15*
4. I wish I had a different kind of life.[a] (SLSS 4)	5.06	1.27	.78	.38***	.14*
5. I have a good life. (SLSS 5)	5.29	0.94	.87	.35***	.15*
6. I have what I want in life. (SLSS 6)	4.82	1.10	.84	.35***	.17**
7. My life is better than most of my age. (SLSS 7)	4.05	1.26	.55	.52***	.10

Note. $N = 286$. *FUPC* = First unrotated principal component. $r_{tt}(4)$ = Test-retest correlations (interval four months). $r_{L=}$ Correlations with the Lie scale of the J-EPQ.

[a] Items are reverse scored.

*$p < .05$. **$p < .01$. ***$p < .001$.

Reliability

The items of the German SLSS inter-correlated significantly, with a median of .52 (ranging from $r = .23$ to $r = .79$), and the scale showed a substantial Cronbach's Alpha of .88. The items showed a median of corrected item-total correlations of .75 (ranging from $r = .44$ to $r = .81$). Table 1 shows that the test-retest correlations on the item level (see Table 1) ranged from $r = .35$ to $r = .52$ (median of .44); and the German SLSS showed a stability of $r = .55$ for an interval of four months (with no changes on mean level indicated by a paired t-test; $t[285] = 0.20$, $p = .839$).

Factorial structure

Following Dew and Huebner (1994), a principal component analysis showed that one eigenvalue exceeded unity, and the scree test and parallel analysis (Horn, 1965) suggested a one-factor solution as well (first five eigenvalues: 4.30, 0.84, 0.66, 0.45, 0.35). This single factor explained 61.40% of the variance. Table 1 shows the factorial loadings of the first unrotated principal component (FUPC) with a median of .84 (ranging from .55 [item 7] to .88 [items 1,2]). This FUPC showed a correlation of .89 and a Tucker's Phi of 1.00 with the solution reported by Dew and Huebner (1994).

Associations with age, gender, and social desirability

Associations between the German SLSS and age ($r = -.02$, $p = .806$) and gender ($t[284] = 1.30$, $p = .196$) failed to be significant. LS was found to be moderately correlated with social desirability ($r = .20$, $p < .01$). On the item level (see Table 1), we found low correlations of between $r = .10$ and $r = .19$ with a median of .15.

Correlations with temperament

In order to explore the validity of the SLSS, we computed partial correlations (controlled for gender, as P and N were found as associated with gender) between the German SLSS (total scale and seven items) and the three superfactors P, E, and N (see Table 2).

Table 2. *Partial Correlations Between the German SLSS (Total Score and Seven Items) and the Three Super-Factors P, E, and N*

German SLSS	P	E	N
SLSS total	-.16**	.29***	-.48***
SLSS 1	-.20**	.23***	-.43***
SLSS 2	-.15*	.24***	-.43***
SLSS 3	-.02	.19**	-.49***
SLSS 4	-.13*	.24***	-.33***
SLSS 5	-.18**	.25***	-.33***
SLSS 6	-.15*	.27***	-.35***
SLSS 7	-.06	.14*	-.20**

Note. $N = 286$. P = Psychoticism. E = Extraversion. N = Neuroticism. Correlations were controlled for gender. *$p < .05$. **$p < .01$. ***$p < .001$.

Table 2 shows that global LS was significantly associated with all three superfactors in theoretically meaningful ways. As expected, the German SLSS showed negative correlations with P and N and a positive correlation with E. The numerically highest associations were found between German SLSS item 1 ("My life is going well") and P ($r = -.20$), item 6 ("I have what I want in life") and E ($r = .27$), and item 3 ("I would like to change many things in my life") and N ($r = -.49$). These findings indicated concurrent validity of the German SLSS as all presumably expected meaningful associations were found.

Discussion

In study one, the results suggested that the German adaptation of the SLSS is a unidimensional and reliable measure. As the instructions ask for trait-like (not for state-like) judgments, the SLSS shows a meaningful stability coefficient. As expected (e.g., Proctor et al., 2009) the instrument is slightly correlated with social desirability, but uncorrelated with age and gender in 12-17 year-old Swiss students. Furthermore, a higher mean for the German SLSS was observed compared to the Huebner et al. (2005) US sample. This finding is

comparable with studies on adults (e.g., Diener, 2000; Veenhoven, 2011) where Swiss participants typically show higher LS than US adults. Item 7 was the only item that was slightly modified when adapting the SLSS for German language; it showed the lowest factorial loading, but also the highest test-retest correlation. As this item has also demonstrated the lowest loading in both the US and the Portuguese versions (e.g., Dew & Huebner, 1994; Huebner, 1991a; Marques, Pais-Ribeiro, & Lopez, 2007), this lower loading is not likely due to the translation process. A possible reason for this finding might involve the change in the perspective required for this item relative to the other items. Items 1 to 6 involve only the perspective of the self in relation to an undefined, individually-determined standard. In contrast, item 7 requires a comparison between the self and others. Finally, as Heaven (1989) found for Australian students higher LS was also reported by emotional stable, extraverted, and "socialized" (Eysenck & Eysenck, 1975) low P scoring Swiss students.

Summing up, findings of study one showed that there was no need to revise the German SLSS for future research. A limitation of study one is the relatively homogeneous Swiss convenience sample. Therefore, there is a need to investigate the properties of the German SLSS within a more heterogeneous and larger sample.

Study 2

Study 2 aimed at examining further the psychometric properties, factor structure, and reliability of the German SLSS. Given the empirical evidence that data collected via the Internet is comparable to data obtained via traditional paper-pencil methods (Gosling, Vazire, Srivastava, & John, 2004), we used an internet-based approach for data collection to generate a larger, more heterogeneous sample. Age and gender effects of the German SLSS were tested as well as mean differences across three German-speaking subsamples (i.e., Austrian, German, Swiss). Furthermore, to test convergent validity, the associations between German SLSS and another self-report life satisfaction measure (i.e., BMSLSS) were studied.

Method

Participants

The sample consisted of 3407 German-speaking children and adolescents (1289 boys [37.8%] and 2118 girls [62.2%]). Their mean age was 14.95 years (*SD* = 1.75; ranging from 10-17 years). Participants were from the highest level of secondary school (50.2%), the medium level of secondary school (21.5%), the lowest level of secondary school (12.7%), primary school (5.2%), and other educational institutions, such as apprenticeship (10.4%). Around two-fifths of them were of German (41.9%), 38.4% of Swiss, and 19.7% of Austrian nationality.

Instruments

The *German* version of the *Students' Life Satisfaction Scale* (*German SLSS*; American original version by Huebner, 1991a) as previously described in study 1.

The *Brief Multidimensional Students' Life Satisfaction Scale* (*BMSLSS*; Seligson et al., 2003) is a five-item measure for the self-assessment of domain-specific satisfaction (i.e., family life, friendships, school experiences, self, living environment) using a 7-point answer format (1 = *terrible* to 7 = *delighted)*. A sample item is "I would describe my satisfaction with my family life as:…". Analyses are based on both the five domain-specific single items as well as a BMSLSS total score (i.e., total score is formed by averaging the five items). The German translation used in this study demonstrated reliability and validity (Weber, 2011) and yielded a Cronbach's alpha of .71, replicating findings of Seligson et al. (2003).

Procedure

The participants completed both measures among other instruments on a well-established website for research purposes (www.charakterstaerken.org; hosted by the Section on Personality and Assessment, Department of Psychology, University of Zurich). The website was advertised using different ways, such as press coverage (e.g., newspaper and several magazines) in order to facilitate the heterogeneity of the sample. Volunteers

registered on the website from their personal computers and filled in the instruments there. All students provided the permission of their parents or legal guardians during the registration process. None of the students was paid for participation.

Results

Descriptive statistics

The German SLSS showed in the total sample a mean of 4.45 (*SD* = 0.98), and means of 4.43 (*SD* = 1.00), 4.29 (*SD* = 1.01), and 4.63 (*SD* = 0.89) in the Austrian, German, and Swiss subsamples, respectively. There were no differences in means between the Swiss subsample in this study and the Swiss students in study one. Means and standard deviations on the item level are presented in Table 3.

Table 3 shows that the means of items ranged in the total sample from 3.38 (*SD* = 1.45; item 3) to 5.06 (*SD* = 1.06; item 5). This pattern was comparable in all three subsamples.

Reliability

Items inter-correlated with a median of .57 (ranging from $r = .26$ to $r = .74$) in the total sample, and with medians of .58, .57, and .54 in the Austrian, German, and Swiss subsamples, respectively. The German SLSS showed a substantial Cronbach's Alpha of .88 in the total sample as well as in the three subsamples (αs from .87 to .89). The median of corrected item-total correlations was .73 (ranging from $r = .42$ to $r = .78$) in the total sample, and .72, .73, and .71 in the Austrian, German, and Swiss subsample, respectively.

Factorial structure

Four principal component analyses were computed to explore the factorial structure of the German SLSS in the total sample as well in the three subsamples. As expected, one eigenvalue exceeded unity, and the scree test and the parallel analysis (Horn, 1965) suggested a one-factor solution as well (first five eigenvalues: 4.31, 0.80, 0.52, 0.47, 0.39) in the total sample. This single factor explained 61.58% of the variance.

Table 3. *Means, Standard Deviations, and the First Unrotated Principal Component of the German SLSS Items for the Total Sample and Nation-Specific*

	Total (N = 3407)			Austrian (n = 672)			German (n = 1426)			Swiss (n = 1309)		
Items	*M*	*SD*	*FUPC*	*M*	*SD*	*FUPC*	*M*	*SD*	*FUPC*	*M*	*SD*	*FUPC*
SLSS 1	4.78	1.10	.86	4.81	1.11	.86	4.59	1.16	.86	4.98	1.00	.85
SLSS 2	4.43	1.29	.86	4.41	1.35	.88	4.20	1.34	.85	4.69	1.15	.85
SLSS 3	3.38	1.45	.73	3.23	1.46	.71	3.20	1.41	.73	3.67	1.44	.73
SLSS 4	4.94	1.43	.79	4.90	1.50	.81	4.80	1.50	.79	5.10	1.31	.77
SLSS 5	5.06	1.06	.86	5.08	1.09	.84	4.89	1.11	.86	5.23	0.95	.85
SLSS 6	4.48	1.20	.82	4.49	1.22	.81	4.23	1.25	.82	4.75	1.08	.80
SLSS 7	4.06	1.32	.52	4.06	1.36	.52	4.10	1.33	.57	4.02	1.29	.50

Note. *FUPC* = First unrotated principal component.

The pattern of the first five eigenvalues was identical in all three subsamples, and the total amount of explained variance was 61.31%, 62.20%, and 59.97% across Austrians, Germans, and Swiss students, respectively.

Table 3 shows the loadings of the first unrotated principal component for the total sample as well as nation-specific samples. Loadings in the total sample showed a median of .82 (ranging from .52 [item 7] to .86 [items 1,2,5]). Comparable loadings were observed in the three subsamples (medians between .80 and .82).

Effects of age and gender

A 8 x 2 between-subjects ANOVA with age (10 to 17 years in one-year intervals) and gender (male vs. female) as independent variables and the German SLSS total score as the dependent variable was performed. There was no effect of gender and no interaction effect. However, a small age effect was identified (F[7, 3391] = 18.82; $p < 0.001$; partial $\eta^2 = .037$). Means in different age groups are presented in Figure 1. Figure 1 shows a linear decreasing trend from 10 to 17 years that was highly significant with F(1, 3399) = 128.87, $p < .001$. This linear trend explained 91.86 % of the total age effect.

Effect of nationality

A one-factorial ANCOVA was performed, with nationality (Austrian vs. German vs. Swiss) as the independent variable, age (10-17 years) as a covariate, and the German SLSS as the dependent variable. As expected, age showed a significant effect on the German SLSS (F[1, 3403] = 104.23; $p < 0.001$; partial $\eta^2 = .030$). There was also a small effect of nationality on the German SLSS (F[2, 3403] = 32.39; $p < 0.001$; partial $\eta^2 = .019$). Using post hoc tests (Bonferroni corrected), differences were found between all three subsamples (all ps < .01). The Swiss students showed the highest mean of 4.60 (SE = 0.03), followed by the Austrian students (M = 4.46; SE = 0.04) and the German students (M = 4.30; SE = 0.03).

Correlations with another LS measure

Testing for convergent validity, we computed partial correlations (age-controlled)

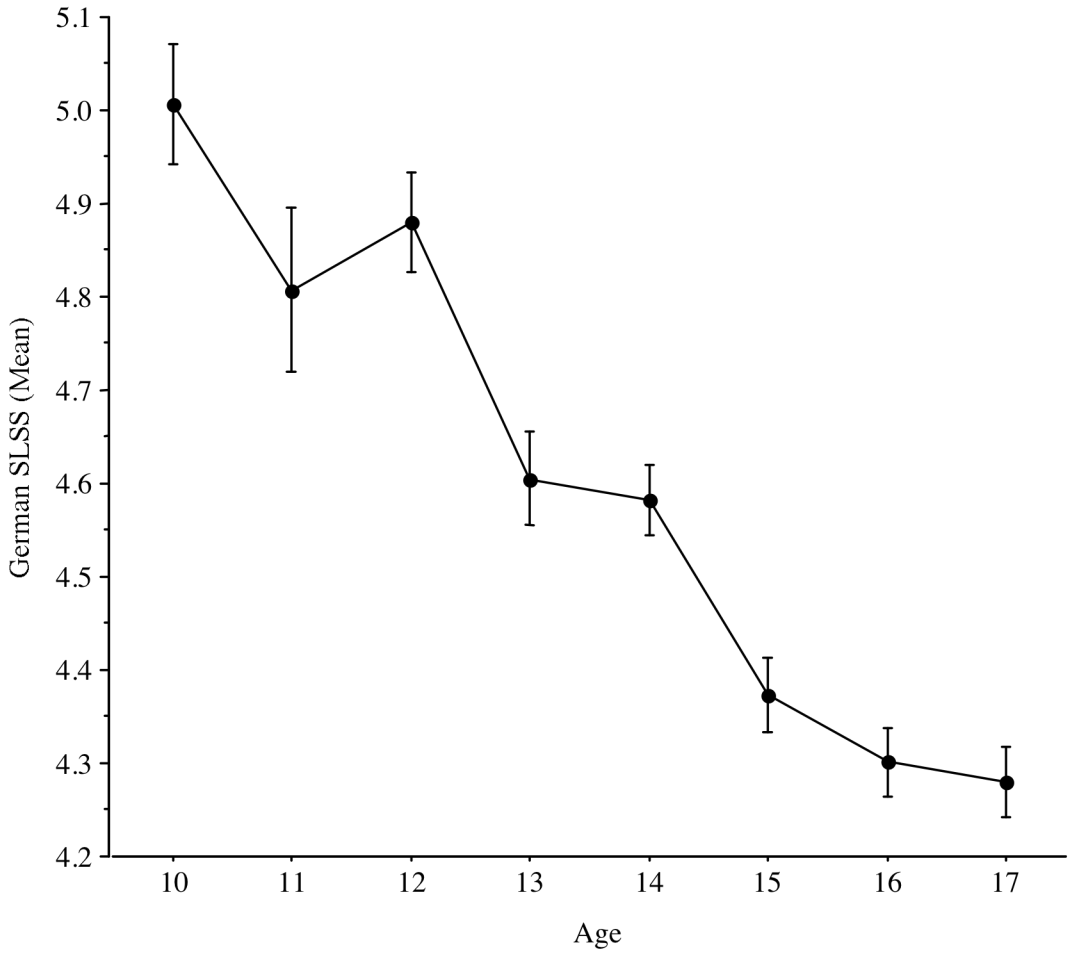

Figure 1. Means in the German SLSS total score (+/- *SE*) in the ages of 10 years (*n* = 64), 11 years (*n* = 63), 12 years (*n* = 218), 13 years (*n* = 343), 14 years (*n* = 580), 15 years (*n* = 588), 16 years (*n* = 771), and 17 years (*n* = 780).

between the German SLSS and the BMSLSS total score, and its five single domain scores. Results for the total sample as well as the subsamples are presented in Table 4. Table 4 generally shows that the German SLSS correlated substantially with the BMSLSS total score and all single domains of satisfaction. Furthermore, among the different life domains, the *family* and *self*-related satisfaction domains showed the highest correlations with global life satisfaction and the *friends*, *school* and *living environment*-related domains showed the lowest correlations. The results of the total sample were comparable in all three subsamples.

Table 4. *Partial Correlations Between German SLSS and BMSLSS in the Total Sample and Nation-Specific*

	German SLSS			
BMSLSS	Total (N = 3407)	Austrian (n = 672)	German (n = 1426)	Swiss (n = 1309)
Total score	.70	.72	.69	.67
Family	.51	.53	.47	.53
Friends	.39	.39	.38	.37
School	.41	.44	.40	.40
Self	.66	.67	.68	.62
Living environment	.36	.36	.36	.35

Note. All correlations were controlled for age and significant at $p < .001$.

Discussion

In study two, further support for the factor structure and reliability of the German adaptation of the SLSS was obtained. The mean found in the Swiss sample of study one was fully replicated in the Swiss subsample of study two. This indicates a consistent result for the German SLSS across two types of measure administering (i.e., paper-pencil vs. Internet-based). As the present research is limited only to paper-pencil data from Swiss students, future studies are needed that replicate results also for Austrian and German students.

The mean differences between Austrian, German, and Swiss students are comparable with results found for adults (e.g., Veenhoven, 2011), where Swiss participants showed the highest LS on a 10-point-scale (M = 8.1), followed by the Austrian (M = 7.6), and the German participants (M = 7.1). This finding on differences in global LS offers useful but preliminary information in understanding the SLSS in the German context. Nevertheless, caution should be exercised in terms of interpreting the generalizability of the findings regarding differences between different German-speaking countries. The use of the Internet

procedure in this study to collect data was not aimed specifically for cross-cultural research questions (e.g., generating parallel samples regarding age, gender, education, etc. from all three countries).

The small age effect indicating a linear decreasing trend in global LS from ages 10 to 17 is consistent with findings reported by Goldbeck, Schmitz, Besier, Herschbach, and Henrich (2007). Another limitation of study two is the cross-sectional design, therefore, the trend of decreasing LS needs to be replicated using a longitudinal design to more systematically evaluate age-related (vs. cohort) effects.

Finally, the German SLSS shows acceptable convergent validity, as its correlation with the BMSLSS total score was substantial with .70 (corrected for attenuation: $r = .89$). Comparable findings in US samples are reported by Funk, Huebner, and Valois (2006) and Seligson et al. (2003). Also, family and self-related satisfaction reports were the strongest domain-based correlates of global LS and the school and living environment reports were among the weakest domain-based correlates. This finding is consistent with Seligson et al. (2003), suggesting comparable convergent and discriminant validity.

General Conclusions

This research documented the successful adaptation of a measure of global life satisfaction in German speaking children and adolescents, aged between 10 and 17 years. Because researchers often require reliable, valid, and brief measures of LS, the German SLSS will be a very useful assessment tool for future research in this field (e.g., large-scale-assessments). Further studies are planned in order to provide more information about the discriminant and convergent validity of the German SLSS (e.g., its associations with character strengths in young people). The data on students in study two may also provide a useful, preliminary normative comparison base for future research. Summing up all the reported results, the German SLSS can be recommended for use with German-speaking participants.

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Part III:

The Role of Character Strengths in Adolescent Romantic Relationships: An Initial Study on Partner Selection and Mates' Life Satisfaction

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Abstract

The present study investigated the role of 24 character strengths in 87 adolescent romantic relationships focusing on their role in partner selection and their role in mates' life satisfaction. Measures included the Values in Action Inventory of Strengths for Youth, the Students' Life Satisfaction Scale, and an Ideal Partner Profiler for the composition of an ideal partner. Honesty, humor, and love were the most preferred character strengths in an ideal partner. Hope, religiousness, honesty, and fairness showed the most substantial assortment coefficients. Hierarchical regression analyses revealed targets' character strengths as explaining variance in targets' life satisfaction. Furthermore, to a lesser degree, specific character strengths of partners and couples' similarity in certain character strengths explained variance in targets' life satisfaction beyond targets' character strengths. This first research on this topic showed that character strengths play a significant role in adolescent romantic relationships.

Keywords. character strengths; partner selection; adolescent romantic relationship; life satisfaction; mate preferences; assortative mating

The Role of Character Strengths in Adolescent Romantic Relationships: An Initial Study on Partner Selection and Mates' Life Satisfaction

Introduction

The present exploratory study investigated the role of character strengths for the description of ideal partners, for selecting real life partners, and for determining mates' global life satisfaction. Peterson and Seligman (2004) developed the Values in Action (VIA) classification of 24 morally valued, positive traits (i.e., character strengths) that are represented in individuals' thoughts, feelings, and behaviors. Their theoretically derived VIA classification consists of six virtues (on the highest, abstract level) that are manifest in life via character strengths (Peterson & Seligman, 2004). Each of these virtues comprises three to five observable, measurable character strengths: (1) *wisdom and knowledge* (includes the character strengths of creativity, curiosity, open-mindedness, love of learning, perspective), (2) *courage* (i.e., bravery, perseverance, honesty, zest), (3) *humanity* (i.e., love, kindness, social intelligence), (4) *justice* (i.e., teamwork, fairness, leadership), (5) *temperance* (i.e., forgiveness, modesty, prudence, self-regulation), and (6) *transcendence* (i.e., beauty, gratitude, hope, humor, religiousness). Peterson and Seligman (2004) established several criteria that a positive trait had to fulfill to be included in their classification. One criterion was that the display of a character strength by an individual does not diminish other persons in their environment, quite the contrary, their display elevates others who are with them (Park & Peterson, 2009). This led us to the assumption that character strengths are worthy to be studied in the context of romantic relationships, where two mates interact closely with each other. It was thus expected that character strengths are relevant for partner selection and mates' life satisfaction.

We considered Peterson's (2006) two-dimensional model differentiating character strengths with *focus on the self* (e.g., creativity, curiosity) vs. character strengths with *focus on others* (e.g., teamwork, fairness), and *mind-related* (e.g., open-mindedness, self-

regulation) vs. *heart-related* character strengths (e.g., gratitude, love) reflecting whether all character strengths might be equally important for adolescent romance. Given the lack of theory and research in this area of inquiry, our study was exploratory in nature. Nevertheless, we expected that most character strengths would be significantly related to adolescent romance (e.g., for partner selection), especially those character strengths with a focus on others and those that are heart-related, because there seems to be a clear connection to romance. On the other hand, character strengths that represent the combination of self-focused and mind-related characteristics (i.e., four of the five character strengths of the virtue wisdom and knowledge) were expected to be less strongly related to adolescent romance, including describing an ideal partner and becoming a couple.

One study investigated the topic of character strengths in the context of romance (Steen, 2003). Conducting content analyses of *personal advertisements* of 222 adults (age ranging from 25-72 years) Steen identified age, love, ethnicity, physical attractiveness, humor, education, zest, and kindness as the most desired (between 44% and 24%) characteristics. This finding indicates that specific character strengths (e.g., love, humor, zest, kindness) appeared more than others in adults' expectations for desired partners. Furthermore, Steen asked 1367 participants (age ranging from 16-65 years) to rate the importance of various personality characteristics in a partner, which make a *good* romance (e.g., intelligence, dependability, 24 character strengths). Concerning the character strengths, Steen found that loyalty (teamwork), capacity to love and be loved (love), and honesty were rated as the most important characteristics, even more important than, for example, intelligence. The current study extends beyond Steen's (2003) research by studying character strengths for the first time in adolescent couples (vs. individuals) using a sophisticated measure of character strengths.

Partner selection

We pursued two approaches when studying criteria for adolescents' selection of

partners (i.e., consensual preferences and assortative preferences; e.g., Figueredo, Sefcek, & Jones, 2006). *Consensual preferences* (i.e., ratings of the desirability of listed personality characteristics in an ideal partner) have been extensively studied in adults. Prior research found personality characteristics, like mutual attraction/love, dependable character, kind and understanding, character, maturity, exciting personality, good overall personality, honesty, good sense of humor among the most preferred characteristics, whereas religiousness or similar religious background were found among the less preferred characteristics (e.g., Buss & Barnes, 1986; Buss et al., 1990; Buss, Shackelford, Kirkpatrick, & Larsen, 2001; Feingold, 1992; Furnham, 2009; Regan, 2008). There are only a few studies that investigated consensual mate preferences in adolescents. Regan and Joshi (2003) found intellect (e.g., intelligent, sense of humor), physical appeal (e.g., physically attractive appearance), sexual drive (e.g., sexual passionate), and interpersonal skills and responsiveness (e.g., friendly) as most preferred characteristics. Honesty was found as the most preferred characteristic in a partner among Swiss adolescents (Bodenmann, 2003).

Assortative preferences (i.e., correlation between males' characteristic A and females' characteristic A) studied in adults showed different degrees of positive assortment depending on the category of personality variables. Intelligence, opinions, and attitudes yielded the highest positive assortment coefficients (.50 - .54; Vandenberg, 1972). This was found, for example, for religious attitudes (Watson, Klohnen, Casillas, Simms, Haig, & Berry, 2004). Personality traits (e.g., big five, sensation seeking) have shown positive, but smaller coefficients (between zero and .35; e.g., Lesnik-Oberstein & Cohen, 1984; McCrae, Martin, Hřebíčková, Urbanek, Boomsma, Willemsen, & Costa, 2008; Vandenberg, 1972). Simon, Aikins, and Prinstein (2008) studied in a longitudinal design prerelationship similarity of adolescents that became a couple during the study. They found positive associations between mates' popularity, body appeal, self-rated depressive symptoms, and physical attractiveness indicating positive assortment (coefficients between .25 and .56). Because character strengths

were found as predictive for popularity and psychopathological symptoms in adolescents (Park & Peterson, 2006), it was assumed for this study that those positive, valued traits might also show positive assortment coefficients. The degree of assortment was expected to be similar to that found for other traits. Based on the reported literature it is hypothesized that at least the character strengths of humor, honesty, kindness, love, religiousness, and teamwork will play a role in adolescent partner selection.

Mates' life satisfaction

Another criterion to be included in the VIA classification was that character strengths should contribute to a fulfilled and satisfied life (e.g., Peterson & Park, 2011; Peterson & Seligman, 2004). Hence, we hypothesized that character strengths would predict individuals' and partners' life satisfaction. Therefore, we explored the role of character strengths in adolescent romantic relationships as *positive institutions* (i.e., couples, where both partners report a satisfied life). Life satisfaction is defined as the cognitive, judgmental component of subjective well-being that asks for a global evaluation of life (e.g., Diener, Emmons, Larsen, & Griffin, 1985; Huebner, 1991a). For the purposes of this study, high self-reported satisfaction with life was considered a good indicator of a life where most life conditions (incl. the romantic relationship) are going well.

Similarity in different characteristics (e.g., values, personality traits) has been already used as predictor of satisfaction in adults. Arrindell and Luteijn (2000) found negative correlations between dissimilarity (operationalized with the Euclidean distance) in personality and satisfaction of -.20 and -.24 for males and females, respectively, indicating that the more dissimilar couples reported lower satisfaction. Watson et al. (2004) examined by means of hierarchical multiple regressions, whether the difference score (i.e., absolute difference between partners' ratings in a variable of interest) in a domain (e.g., Neuroticism) predicted satisfaction in males or females when controlling for the targets' and partners' scores in that domain. They found an incremental effect on wives' satisfaction for similarity

in positive emotions and dissimilarity in negative emotions with significant R^2 changes of .016 and .021, respectively. Husbands' satisfaction was influenced (beyond self and wives' ratings) by similarity in Openness and Conscientiousness, and dissimilarity in negative emotions (significant R^2 changes of .019, .016, and .014, respectively).

With respect to character strengths, we hypothesized that the strongest impact on mates' life satisfaction would be due to the targets' own character strengths, because those character strengths have been found to be substantial predictors of individuals' life satisfaction in several self-report studies (e.g., Park & Peterson, 2006; Park, Peterson, & Seligman, 2004; Peterson, Ruch, Beermann, Park, & Seligman, 2007; Ruch, Proyer, Harzer, Park, Peterson, & Seligman, 2010; Ruch, Weber, Park, & Peterson, 2011; Van Eeden, Wissing, Dreyer, Park, & Peterson, 2008). There are no specific hypotheses about how partners' character strengths would be related to targets' life satisfaction. However, Watson et al. (2004) reported that partners' personality characteristics like Neuroticism and Agreeableness contributed slightly to targets' life satisfaction. Furthermore, prior research has found only small effects of similarity in personality characteristics predicting satisfaction. Thus, we also assumed small effects on targets' satisfaction for couples' similarity in character strengths.

The present study

This study is aimed at helping to close gaps in literature. For example, Collins, Welsh, and Furman (2009, p. 638) noted that "little is known, however, about adolescents' selection of partners". Three major gaps were identified in the current literature. First, most available research on partner selection is based on adult samples, but according to Brown, Feiring, and Furman (1999), romance is not only broadly represented in many songs or television serials, but it is also highly represented in adolescents' minds, which means, it is important for their lives. Furthermore, romantic relationships contribute to shaping the subsequent general developmental course (e.g., identity development; Furman & Shaffer, 2003). Therefore, there

is a need to study the determinants of young people's romantic relationships, including the possible role of character strengths. Second, the conceptual breadth of investigated variables often has been too variable (e.g., rating lists combining broad, more abstract with narrow, more specific concepts). Hence, the present study will investigate a family of 24 different character strengths (Peterson & Seligman, 2004) in context of adolescent romance to understand their role in more detail, at the same level of abstraction. Third, there is currently no knowledge whether both partners' character strengths or couple similarity in character strengths provide incremental information on mates' life satisfaction beyond the individuals' own character strengths.

Therefore, the present study is aimed at answering three main questions: First, which of the 24 character strengths are consensually preferred mostly in an ideal partner? Second, are there assortative preferences for character strengths in adolescent romantic relationships? Third, what amount of variance in mates' life satisfaction will be explained by (a) targets' character strengths, (b) by partner's character strengths beyond the targets' character strengths, and (c) by couples' similarity in character strengths beyond both targets' and partners' character strengths? Additionally, as honesty has been found to be very relevant for romantic relationships (Bodenmann, 2003; Steen, 2003) there will be a special focus on its role in this context in the present study.

Method

Participants

The sample consisted of 174 German-speaking Swiss participating in a total of 87 heterosexual romantic relationships. Their mean age was 16.45 years (*SD* = 1.28; ranging from 13-19 years). About two thirds of them (63.6%) attended secondary school (highest level), 22.0% attended an apprenticeship, 6.9% attended secondary school (medium level), 7.5% reported other education. The averaged relationship duration was 11.19 months (*SD* = 9.14; min = 0.25, max = 36.00 months).

Instruments

The *Values in Action Inventory of Strengths for Youth* (*VIA-Youth*; Park, & Peterson, 2006) adapted to German by Ruch et al. (2011) consists of 198 items for the self-assessment of the 24 character strengths of the VIA classification (Peterson & Seligman, 2004). There are 7-9 items per character strength, and about one third of the items are reverse coded. The VIA-Youth uses a 5-point Likert-style format (from 1 = *not like me at all* to 5 = *very much like me*). A sample item is ”I believe that things will always work out no matter how difficult they seem now“ (hope). The VIA-Youth is tested in several studies as a reliable and valid measurement (e.g., Park & Peterson, 2006; Ruch, et al., 2011). The internal consistencies of the 24 scales ranged from $\alpha = .66$ (perspective and social intelligence) to $\alpha = .91$ (religiousness) yielding a median of $\alpha = .77$ in this study (only two scales yielded coefficients < .70).

The *Students' Life Satisfaction Scale* (*SLSS*; Huebner, 1991a) adapted to German by Weber, Ruch, and Huebner (in press) is a seven-item self-report measure of satisfaction with life (as a global cognitive judgment of adolescents' life). Two of the items are reverse coded. It uses a 6-point answer format (from 1 = *strongly disagree* to 6 = *strongly agree*). A sample item is ”I have what I want in life“. The SLSS is tested in several studies across cultures as a reliable and valid measurement (e.g., Huebner, 1991a, b; Weber et al., in press). The internal consistency yielded an alpha coefficient of .89 in this study.

The *Ideal Partner Profiler* (*IPP*; Weber, 2008) is a list of the 24 character strengths presented as one-word descriptions with 0-2 synonyms (e.g., “gratitude” or “honesty/authenticity” or “open-mindedness/judgment/critical thinking”) as proxies for the character strengths. Respondents were asked to select exactly five character strengths to describe an ideal partner. Furthermore, the respondents were told that these selections should be done, without taking into account the character strengths of their current partners.

Procedure

Participants were recruited in German-speaking Swiss schools within the classroom setting. In a 10 minute time slot, the adolescents were introduced to the general procedure of the study (e.g., how to fill in the questionnaires). If participants were currently in a romantic relationship, they received an envelope containing two separated test-booklets composed of the German VIA-Youth, the IPP, the German SLSS, and questions regarding demographics (e.g., age, gender). Couples were instructed to fill in the questionnaires at home in a silent setting separated from each other to avoid biased answers. Upon request, participants received written individualized feedback on their character strengths. All adolescents participated voluntarily, and participants younger than 18 years provided the permission of their parents or legal guardians. None of the participants were paid for their services.

Results

Consensual preferences for character strengths

To describe consensual preferences of character strengths, the selected ideal partner character strengths (i.e., IPP nominations) were ranked according to absolute frequencies of their nomination. Table 1 shows the results split by gender.

Table 1 shows that honesty, humor, love, kindness, hope, gratitude, and fairness were among the most frequently nominated character strengths in both males and females. Religiousness, love of learning, perseverance, and leadership were among the less frequent nominated ones. As expected, honesty, humor, kindness were among the most preferred character strengths. Furthermore, as expected, this study expanded the list of consensually preferred characteristics in mates by several further positive traits (e.g., hope, gratitude, fairness). Spearman's rank correlation between males' and females' rankings of character strengths was computed and indicated a convergence of .89 ($p < .001$), suggesting a high consensus in preferred character strengths among male and female adolescents.

Table 1. *Males and Females IPP Nominations of Character Strengths*

Males (n = 80)			Females (n = 85)		
Variables	f	%	Variables	f	%
Honesty	66	82.50	Honesty	73	85.88
Humor	62	77.50	Humor	65	76.47
Love	52	65.00	Love	51	60.00
Kindness	30	37.50	Kindness	41	48.24
Hope	22	27.50	Hope	26	30.59
Gratitude	19	23.75	Gratitude	20	23.53
Fairness	18	22.50	Fairness	19	22.35
Forgiveness	17	21.25	Creativity	18	21.18
Prudence	17	21.25	Social intelligence	17	20.00
Creativity	14	17.50	Curiosity	16	18.82
Curiosity	14	17.50	Forgiveness	12	14.12
Open-mindedness	14	17.50	Bravery	11	12.94
Social intelligence	13	16.25	Zest	10	11.76
Beauty	13	16.25	Beauty	8	9.41
Zest	6	7.50	Open-mindedness	7	8.24
Perspective	4	5.00	Teamwork	7	8.24
Teamwork	4	5.00	Self-regulation	7	8.24
Modesty	3	3.75	Prudence	6	7.06
Self-regulation	3	3.75	Perspective	3	3.53
Bravery	2	2.50	Perseverance	2	2.35
Leadership	2	2.50	Modesty	2	2.35
Love of learning	1	1.25	Love of learning	1	1.18
Perseverance	1	1.25	Leadership	1	1.18
Religiousness	1	1.25	Religiousness	0	0.00

Note. *f* = Frequency of nominations.

How did adolescents choose the character strengths for an ideal partner? We examined whether adolescents described an ideal partner similar to themselves or whether they considered the current partner as a model. Therefore, the individual ranks of self-reported character strengths were computed and the top five (i.e., signature strengths) were coded with 1 whereas the remaining 19 were coded with 0. The five selected character strengths of the IPP were also coded with 1 and the remaining ones with 0. The Phi correlation coefficients were computed between character strengths and self-reported ideal partner nominations for each participant. The means of the Phi coefficients were .21 and .24 for males and females, respectively, which suggest small convergence between the own and the selected ideal signature strengths. Furthermore, the self-reported character strengths were cross-correlated with individuals' partner-rated ideal partner nominations to test whether the current partner was the model for the ideal partner ratings. The means of the correlation coefficients were $r = .18$ for both males and females, suggesting small effects as well.

The role of adolescents' life satisfaction when describing an ideal partner. Pearson correlations between the Phi correlation coefficients (as described above) and life satisfaction scores of males and females were computed. Results showed that the more satisfied adolescents tended to use themselves as a model when composing an ideal partner ($r = .35$, $p = .002$ for males; $r = .21$, $p = .066$ for females).

Assortative preferences for character strengths

We computed correlations between males and females for the 24 character strengths as indicators of assortative preferences (e.g., Kenny, Kashy, & Cook, 2006) in five different steps. In a first step, zero-order correlations were calculated. Second, we computed a first set of partial correlations (controlling for a possible effect of duration of the relationship). Third, as we found associations between mates' age ($r = .40$, $p < .001$) as well as mates' life satisfaction scores ($r = .26$, $p = .015$), we computed a second set of partial correlations (controlling for mates' age). Fourth, a third set of partial correlations (controlling for mates'

life satisfaction) was computed. In the fifth final step, a fourth set of partial correlations was computed (controlling for duration of the relationship, and for mates' age and mates' life satisfaction; see Table 2).

Table 2 shows that nine character strengths showed statistically significant associations at the zero-order level indicating assortative mating (all positive). Honesty, hope, religiousness, and fairness showed the most substantial coefficients with *r*s > .35. All 24 coefficients varied between -.10 (open-mindedness) and .46 (hope) with a median of .19, which was in the expected range.

Three out of four character strengths of the virtue courage were found as correlated (i.e., honesty, bravery, and zest). Furthermore, four out of five character strengths of the virtue transcendence were found as correlated (i.e., hope, religiousness, beauty, and gratitude). Only one character strength of the virtue wisdom and knowledge (i.e., creativity), and one character strength of justice (i.e., fairness) showed positive assortment. No assortment was found for the character strengths of humanity and temperance indicating that character strengths of these virtues were not relevant in adolescent partner selection.

Table 2. *Zero-Order Pearson Correlations, and Four Partial Correlation Analyses Between Males' and Females' Self-Reports Analyzing Assortative Preferences in Character Strengths in Adolescent Romantic Relationships*

Variables	Zero-order	Partial 1	Partial 2	Partial 3	Partial 4
Creativity	.23*	.22*	.30**	.23*	.30**
Curiosity	.11	.10	.07	.09	.07
Open-mindedness	-.10	-.09	-.10	-.10	-.08
Love of learning	.19	.14	.12	.15	.07
Perspective	.02	.01	.02	-.02	-.01

(Table continues)

Table 2 (continued)

Variables	Zero-order	Partial 1	Partial 2	Partial 3	Partial 4
Bravery	.34**	.37**	.35**	.32**	.37***
Perseverance	.20	.20	.20	.12	.13
Honesty	.42***	.43***	.44***	.36**	.39***
Zest	.31**	.30**	.32**	.15	.17
Love	.19	.20	.20	.15	.21
Kindness	.17	.20	.18	.18	.20
Social Intelligence	.09	.10	.10	.07	.08
Teamwork	.20	.24*	.18	.18	.25*
Fairness	.36**	.36***	.38***	.37***	.38***
Leadership	.11	.10	.13	.08	.10
Forgiveness	-.06	-.05	.00	-.08	-.04
Modesty	.06	.07	.08	.07	.09
Prudence	-.03	-.07	-.05	-.10	-.13
Self-regulation	.19	.18	.19	.10	.11
Beauty	.25*	.27*	.26*	.24*	.27*
Gratitude	.24*	.24*	.24*	.20	.20
Hope	.46***	.47***	.46***	.27*	.29**
Humor	.03	.05	.02	.01	.01
Religiousness	.43***	.45***	.43***	.41***	.43***

Note. $N = 87$ couples. Partial 1 = correlations controlled for duration of relationship. Partial 2 = correlations controlled for males' and females' age. Partial 3 = correlations controlled for males' and females' life satisfaction. Partial 4 = correlations controlled for duration of relationship, males' and females' age, and males' and females' life satisfaction. *$p < .05$. **$p < .01$. ***$p < .001$.

The partial correlation analyses showed no substantial change in coefficients, when controlling for duration of the relationship as well as for males' and females' age. However, when controlling for males' and females' life satisfaction, the assortment coefficients of zest

and hope showed a substantial decrease (see Table 2), but hope still stayed significant. We also found this effect, when controlling for all above-mentioned control variables. This indicated that the zero-order assortment coefficient of zest in adolescent romantic relationships was mostly due to mates' life satisfaction, while assortment in hope was not completely explainable by mates' life satisfaction.

Combining results from ideal-partner ratings and assortment analyses – the case of honesty

More than 82.0% of the adolescents indicated honesty as being among the five signature strengths of an ideal partner. Furthermore, honesty was found as a character strength with high positive assortment. Splitting the honesty scores at the median (i.e., < median = low honesty; > median = high honesty) identified more couples, where both partners were high in honesty (38.5%) than couples where both partners were low in honesty (28.2%). Mixed couples (i.e., one partner high and one partner low in honesty; 33.3%) were numerically the second most frequent (see Figure 1).

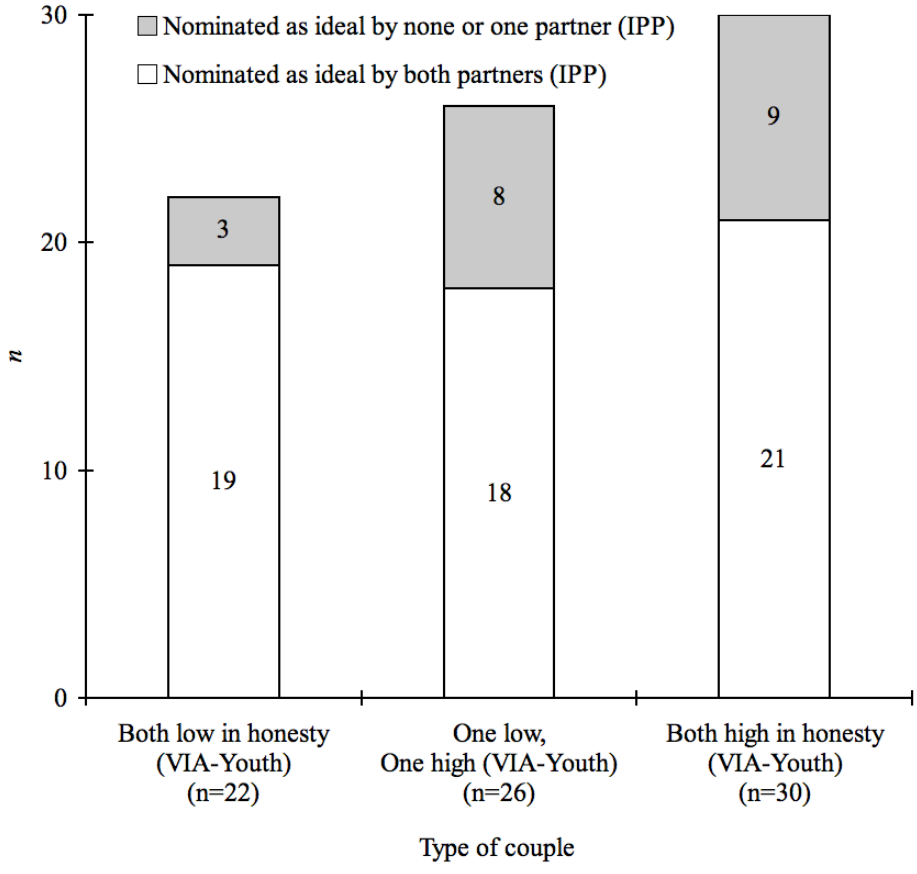

Figure 1. Distribution of self-reported (VIA-Youth) honesty ratings in romantic relationships combined with ideal partner ratings (IPP) in three different types of couples.

Figure 1 shows further on that 19 out of 22 (86.4%) of the couples where both partners were low in honesty asked for an honest ideal partner, whereas around 70.0% of the mixed couples and couples where both were high in honesty asked for an honest ideal partner. This result indicates that honesty is in general a desired character strength, but numerically mostly desired of mates in couples where both partners were low in honesty. Examining whether honesty mattered related to mates' life satisfaction, a 3 (type of couple) x 2 (males' and female' life satisfaction) ANOVA was computed with life satisfaction as a repeated measures variable (see Figure 2 for the results).

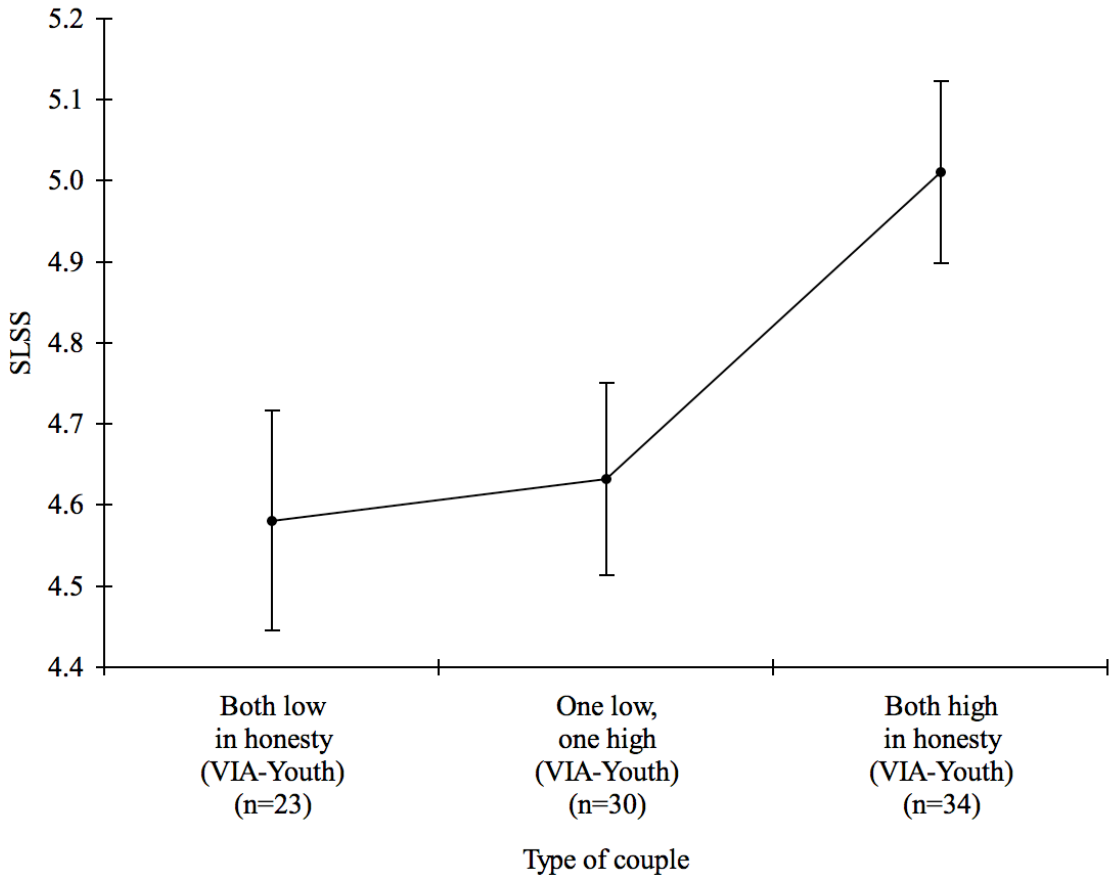

Figure 2. Couples' averaged life satisfaction (SLSS) scores (± *SE*) in three different types of couples.

Figure 2 shows that couples where both partners were high in honesty showed a significantly higher (indicated by LSD post hoc tests) averaged life satisfaction ($M = 5.01$)

compared to the mixed couples (M = 4.63), and couples where both partners were low in honesty (M = 4.58; F[2, 84] = 3.98, p = .022). This result suggested that life satisfaction was a function of the represented degree of couples' honesty. The highest life satisfaction was reported in couples where both partners showed high honesty. One honest partner could not compensate for the decrease of life satisfaction in romantic relationships.

Prediction of mates' life satisfaction

In the following, we examined the contribution of both targets' and partners' character strengths, and couples' similarity in character strengths on targets' life satisfaction (i.e., separated for males and females). Because Watson et al. (2004, p. 1035) argued that "difference scores confound linear and configural effects and fail to provide a clear, unambiguous assessment of similarity/dissimilarity", we computed hierarchical multiple regression analyses utilizing three steps to test the incremental amount of variance in the criterion variable explained by subsequent predictor variables, controlling for prior predictor variables. This strategy of analysis also considered the earlier reported associations between males and females in certain character strengths (i.e., assortative preferences).

Hence, 24 hierarchical multiple regression analyses were conducted twice, with one set of 24 predicting the males' satisfaction and one set of 24 predicting the females' satisfaction. In each of the regressions, targets' self-report was entered in step 1, partners' self-report was entered in step 2, and finally the difference score (i.e., the absolute value of the difference between the mates' scores on each of the 24 character strengths) as an indicator of similarity/dissimilarity was entered in step 3. Table 3 presents the R^2 changes and Rs for both males' and females' satisfaction.

Table 3 shows that in general, character strengths were found to be good predictors of life satisfaction in adolescents (see also Ruch et al., 2011). Targets' life satisfaction was primarily a function of the self-reported character strengths followed by specific partners' self-reported character strengths and similarity scores.

Table 3. *Predicting Males' and Females' Satisfaction: Hierarchical Multiple Regression Analyses of 24 Character Strengths (i.e., Self-Reported and Partners' Self-Reported), and Couples' Similarity (i.e., Absolute Differences) in 24 Character Strengths*

	Males' life satisfaction				Females' life satisfaction			
	R^2 Change				R^2 Change			
	Step 1	Step 2	Step 3		Step 1	Step 2	Step 3	
Variables	Males' self-rating	Females' self-rating	Absolute difference	Final R	Females' self-rating	Males' self-rating	Absolute difference	Final R
Creativity	.013	.015	.003	.18	.016	.013	.003	.18
Curiosity	.012	.000	.009	.15	.042	.005	.017	.25
Open-mindedness	.009	.007	.002	.13	.002	.008	.002	.11
Love of learning	.002	.019	.000	.15	.045*	.025	.009	.28
Perspective	.004	.002	.010	.13	.028	.038	.002	.26
Bravery	.005	.008	.004	.13	.025	.013	.008	.21
Perseverance	.059*	.029	.042*	.36	.053*	.047*	.021	.35
Honesty	.096**	.017	.017	.36	.060*	.008	.080**	.39
Zest	.264***	.014	.053*	.58	.253***	.014	.021	.54
Love	.240***	.000	.010	.50	.177***	.009	.033	.47
Kindness	.035	.002	.006	.21	.003	.000	.014	.13

(Table continues)

Table 3 (continued)

	Males' life satisfaction				Females' life satisfaction			
	R^2 Change				R^2 Change			
	Step 1	Step 2	Step 3		Step 1	Step 2	Step 3	
Variables	Males' self-rating	Females' self-rating	Absolute difference	Final R	Females' self-rating	Males' self-rating	Absolute difference	Final R
Social Intelligence	.045*	.000	.025	.27	.022	.047*	.006	.27
Teamwork	.000	.022	.002	.16	.044	.006	.072*	.35
Fairness	.008	.004	.006	.14	.003	.001	.000	.07
Leadership	.005	.007	.006	.13	.035	.028	.016	.28
Forgiveness	.002	.063*	.043*	.33	.030	.008	.000	.20
Modesty	.010	.011	.011	.18	.014	.000	.003	.13
Prudence	.089**	.018	.029	.37	.051*	.044*	.005	.32
Self-regulation	.059*	.033	.006	.31	.076**	.037	.029	.38
Beauty	.027	.002	.002	.18	.000	.026	.006	.18
Gratitude	.258***	.016	.000	.52	.360***	.002	.006	.61
Hope	.404***	.005	.022	.66	.430***	.000	.001	.66
Humor	.104**	.003	.051*	.40	.055*	.009	.014	.28
Religiousness	.029	.004	.005	.19	.032	.034	.024	.30

Note. $N = 87$. *$p < .05$. **$p < .01$. ***$p < .001$.

For both, males and females, ten character strengths showed final *R*s of .30 or higher predicting targets' life satisfaction. Hope, zest, gratitude, love, prudence, perseverance, honesty, self-regulation were identified as potent predictors in both genders. Humor and forgiveness were additionally found in males, whereas teamwork and religiousness were additionally found in females as predictors of life satisfaction. Most of the variance in targets' life satisfaction was explained by the targets' self-reports in step 1. It explained up to 40.4% of the variance in males' satisfaction and up to 43.0% of the variance in females' life satisfaction. Additionally, females' forgiveness as well as males' perseverance, social intelligence, and prudence were found to be predictors of the partners' life satisfaction in the second step indicating that specific partner characteristics also played a role for partners' life satisfaction. Finally, in step 3 significant effects were found for the absolute difference (couples' similarity), and those with inconsistent directions. Higher males' life satisfaction was related to similarity in perseverance and zest as well as to dissimilarity in forgiveness and humor. Higher female's life satisfaction was associated with similarity in honesty and teamwork.

Discussion

The present exploratory study was designed to explore the role of character strengths in both adolescent partner selection and mates' life satisfaction. Although previous studies have investigated consensual preferences for partner characteristics like *character* or a *good overall personality* (e.g., Feingold, 1992; Regan, 2008), the present study shows the benefits of studying *character* within a multidimensional approach like the VIA classification (Peterson & Seligman, 2004). Asking adolescents to describe an ideal partner, the present research found that honesty was the most desired character strength, followed by humor, love, kindness, and hope. The results of the current research thus suggest that the list of important character strengths in an ideal partner should be extended in the context of adolescent romantic relationships.

The present study also revealed interesting patterns in preferences and assortative mating, particularly with respect to three character strengths. First, as expected, the present study - again - found honesty as the most valued character strength in a romantic partner for both males and females (e.g., Bodenmann, 2003; Furnham, 2009; Steen, 2003), and honesty showed positive assortment. However, the findings demonstrated that a high degree of honesty is required on the part of both persons to call it a positive institution (i.e., a relationship, where both are satisfied). If both partners are low in honesty (i.e., a lack of honest and authentic behavior, feelings, and thoughts), it seems clear that this could result in a greater desire for honesty, which understandably can result in lower life satisfaction.

Humor was a highly preferred character strength in this study (see also, e.g., Bressler, Martin, & Balshine, 2006; Regan & Joshi, 2003), for both males and females. This finding is consistent with Buss (1988) who found *displaying a good sense of humor* as the most frequently nominated way to "be effective in successfully attracting a member of the opposite sex" (p. 621). Not surprisingly, humor does not show assortment in the present study, because males and females might have something different in mind when selecting humor as a desired strength in an ideal partner. Bressler et al. (2006) showed that males prefer females who are receptive to their (i.e., the males') expressions of humor whereas females prefer males who express humor. The VIA-Youth dimension of humor represents the perspective of liking to laugh and joke, and bringing smiles to other people, thus, the VIA-Youth highlights the active expression of humor rather than the passive appreciation of humor. Furthermore, humor as a character strength recently has been found as significantly associated with the use of socially warm humor (i.e., using humor to promote good will; Müller & Ruch, 2011). The distinction between the meaning of humor in relation to target versus partner preference ratings might be a reason for the finding of no assortment among the adolescents in this study.

As in the present study, religiousness typically is found as ranked very low, when

asking for mates' characteristics that are consensually preferred (e.g., Buss et al, 1990). However, as found for religious attitudes (e.g., Watson et al., 2004) religiousness as character strength also shows high positive assortment in the present study. It seems plausible that a religious individual (i.e., believing in a higher purpose and meaning in life) and a nonreligious individual (i.e., believing in earthly, concrete, and manifest aspects) do not fit together very well. A comparable degree in religiousness might be a substantial base for a long-lasting, fulfilling relationship.

The role of character strengths related to life satisfaction in couples is quite interesting. The targets' own character strengths are the best predictors of one's own life satisfaction, but specific partners' character strengths seem to be predictive beyond targets' character strengths as well. Like demonstrated in previous research (e.g., Watson et al., 2004) similarity in personality variables is mostly only a minor predictor in sense of magnitude of coefficients. The present study also found that similarity and dissimilarity in character strengths explain variance in global life satisfaction above and beyond targets' and partners' character strengths.

These initial findings need to be interpreted in the context of some limitations. First, the results need to be replicated in the investigated cultural environment for validation. Following this, it might be interesting to study this cross-culturally to see whether the same character strengths were desired in a partner (ideal or real) in different areas of the world. Second, the cross-sectional design of this study means that causality cannot be established. Thus, longitudinal designs are needed to derive causal inferences regarding the role of character strengths in adolescent romantic relationships. Such longer-term designs would facilitate understanding their antecedents (e.g., whether couples become more equal in selected characteristics over time), and consequences (e.g., stability of the relationships, mates' satisfaction, relationship quality). However, the short duration and instability of relationships in adolescence (e.g., Collins, Welsh, & Furman, 2009) might be a problematic

point for sophisticated longitudinal research. Therefore, couples in late adolescence might be followed up for several years, which would facilitate the study of successful vs. unsuccessful relationships. Such results would give information on the specific aspects (e.g., specific configurations of mates' character strengths) of an adolescent romantic relationship that make it perceived as positive. Third, the current results are based exclusively on self-reports. Future research could also ask for peer-reported or parent-reported character strengths to determine whether self-reported data are comparable with views of significant others. Fourth, future studies might incorporate additional variables to explore a more comprehensive nomological network of variables that may serve as relevant criteria for partner selection, but also aspects that might be related to mates' life satisfaction. Variables such as mates' physical attractiveness, social status or mates' popularity at school, but also couples' intimacy, and mates' sexual experiences might be promising candidates for such an extended model. This opens the possibility for studies of interactions between character strengths and such variables. For one example, it might be that individuals with prudence vs. curiosity as individual top strength differ in the degree of sexual experiences, which could in turn have consequences for the relationship quality.

To conclude, the present findings extend the literature on first knowledge on the role of character strengths in adolescent romantic relationships for both partner selection and mates' life satisfaction. Specific character strengths are useful to describe an ideal partner with honesty, humor, and love as the most favored ones. Certain character strengths (e.g., religiousness, honesty, fairness) showed positive assortment, suggesting that "birds of a feather flock together". There was no negative assortment for character strengths. The targets' own character strengths, and to a lesser degree partners' character strengths and the couples' fit in character strengths seem to play a role for mates' life satisfaction. The study points to the potential usefulness of knowledge about adolescents' character strengths that

might be helpful for adolescents, their parents, as well as for youth counseling and in mental health promotion contexts.

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Part IV:

The Role of a Good Character in 12-Year-Old School Children:

Do Character Strengths Matter in the Classroom?

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Abstract

The present study investigated the role of the good character at school, specifically, its associations with satisfaction with school experiences, academic self-efficacy, positive classroom behavior, and objective school success (i.e., school grades). A sample of 247 students (mean age = 12 years) completed the Values in Action Inventory of Strengths for Youth, and measures on school-related satisfaction and academic self-efficacy. Teacher-ratings on positive classroom behavior, and grades from students' school reports were also collected. Love of learning, zest, gratitude, perseverance, and curiosity were positively associated with school-related satisfaction. Hope, love of learning, perseverance, prudence, and others were positively associated with academic self-efficacy. Character strengths of the mind (e.g., self-regulation, perseverance, love of learning) were predictive for school success. The good character explained about one fourth of the variance in positive classroom behavior, with the specific strengths of perseverance, love of learning, and prudence showing the most substantial positive correlations. A model that postulated the predictive power of classroom-relevant character strengths on school success, mediated through positive classroom behavior was supported. Character strengths (e.g., perspective, gratitude, hope, self-regulation, teamwork) distinguished between students who demonstrated improved vs. decreased grades during the school year. This study shows that the good character clearly matters in different contexts at school, and it seems to be relevant for subjective (e.g., satisfaction) as well as objective (e.g., grades) outcomes, and for positive behavior in classrooms.

Keywords. character strengths; positive classroom behavior; school success; satisfaction with school experiences; academic self-efficacy; children

The Role of a Good Character in 12-Year-Old School Children: Do Character Strengths Matter in the Classroom?

Introduction

The present study investigated the role of 24 positive, morally valued personality traits (i.e., character strengths) at school. Hence, this study will be able to give answers to the recently asked question whether "the positive psychology movement has legs to stand on for children and adolescents, particularly in the setting where they spend the majority of their time - their schools?" (Huebner & Hills, 2011, p. 88). The importance of having substantial answers to this question is obvious: For example, school prepares children for higher education, and work (e.g., Larson, 2000; Masten & Coatsworth, 1998), and finishing school successfully is essential for the unproblematic transition from childhood to adulthood (De Bruyn et al., 2003). From the perspective of the Positive Psychology, which focuses on positive youth development (Park, 2004), we expected that *the good character* (as an enabling factor of a good and flourishing life) would serve as a key resource in the school context, for (1) positive subjective experiences (e.g., satisfaction with school, academic self-efficacy), for (2) positive behavior in the classroom, and as a consequence of the latter also for (3) objective school success (i.e., grades).

Morally valued personality concepts in school context have been neglected since personality psychology discarded the term character (De Raad & Schouwenburg, 1996), although, previous literature indicated morality and character to be important in school context. In the early 20th century, *character traits* (e.g., perseverance, care for detail) were identified as contributing to school success (Poffenberger & Carpenter, 1924). Decades later a factor called *strength of character* (composed of variables like self-reliant, responsible, insistently orderly, socially mature, and resourceful) has been found as positively related to academic success (Smith, 1967). Furthermore, *persistence* was highlighted as a very central variable in context of educational achievement (De Raad & Schouwenburg, 1996). Finally, as

within the Five-Factor approach, conscientiousness and agreeableness entail moral values (De Raad & Schouwenburg, 1996); *conscientiousness* has been found as the most important broad personality dimension that matters in schools (De Raad & Schouwenburg, 1996), especially in grades 6 to 12 (Laidra et al., 2007), whereas in grades 2 to 4 agreeableness matters beyond intellect (Laidra et al., 2007). However, approaches like the Five-Factor Model were not per se developed for the comprehensive investigation of a good character in humans. In contrast, the Values in Action (VIA) classification (Peterson & Seligman, 2004) facilitates the study of the *good character* within a comprehensive model representing a family of positive dispositions and characteristics (Peterson, 2006). The classification is composed of six core virtues at the highest, abstract level. Virtues are manifest in life through a broad range of 24 different character strengths, which are the processes and mechanisms that lead to the virtues. Character strengths are the components of the good character, and are defined as ubiquitous, fulfilling, morally valued, trait-like, distinct and measurable individual differences (Peterson & Seligman, 2004). Individuals express their character strengths in their behavior, but also in their thoughts and feelings. The virtues and the related character strengths are: (1) *wisdom and knowledge* (includes the character strengths creativity, curiosity, open-mindedness, love of learning, perspective), (2) *courage* (i.e., bravery, perseverance, honesty, zest), (3) *humanity* (i.e., capacity to love and be loved [short: love], kindness, social intelligence), (4) *justice* (i.e., teamwork, fairness, leadership), (5) *temperance* (i.e., forgiveness, modesty, prudence, self-regulation), and (6) *transcendence* (i.e., appreciation of beauty and excellence [short: beauty], gratitude, hope, humor, religiousness).

To our knowledge, previous studies that investigated the associations between morally valued concepts and school success focused on a restricted number of selected character-related aspects. Consequently, studies are needed that investigate the role of students' good character in schools using a comprehensive model of morally valued personality traits as introduced by Peterson and Seligman (2004). Based on Peterson and Park

(2006) we postulate that the good character leads students to desire and do the right things at school (e.g., behave positively in classroom, put more effort in learning if necessary), and this behavior will lead, for example, to school success.

Previous research found positive associations between different aspects of *positive behavior in the classroom* (e.g., to be actively engaged in learning, attending, to be compliant, showing constructive self-directed activity, cooperating, helping other kids, showing interest in school work, sharing, to be sociable, volunteering, etc.) and academic success (e.g., De Bruyn et al., 2003; Hoge & Luce, 1979; Leffert et al., 1998; Scales et al., 2000; Wentzel, 1993). All reported different aspects of positive classroom behavior shared one characteristic: all include a *positive, morally valued tone* (e.g., to be actively engaged in learning, to be attentive, helping other children). Therefore, the present study considers the good character as a needed factor to allow for positive classroom behavior, which has been shown to be a core element of school success. Hence, an approach including 24 morally valued character strengths, as brought forward by the VIA classification, is expected to be a very relevant contributor when studying positive classroom behavior and its consequences at school.

To the best of our knowledge, there is currently no published empirical evidence for the association between character strengths, classroom behavior and school success. As regards school success, Park and Peterson (2006) refer to unpublished data suggesting positive associations between character strengths (e.g., perseverance, honesty, fairness, gratitude) and school success. Another study examined the relationship between character strengths and academic success in adult college students and found a positive association between self-reported character strengths (e.g., perseverance, open-mindedness, love of learning, self-regulation, and prudence) and self-reported grade point average (GPA; Lounsbury et al., 2009). As the correlating character strengths were *character strengths of the*

mind[1] (Peterson, 2006) we expect for the present study that those might be also relevant for school success in school children.

Moreover, character strengths have been found as predictive for important global subjective outcomes like global life satisfaction (i.e., a cognitive evaluation of one's own life; Huebner, 1991), and global self-efficacy (i.e., "peoples' beliefs in their capabilities to produce desired effects by their own actions"; Bandura, 1997, p. vii) (e.g., Gillham et al., 2011; Park & Peterson, 2006; Peterson et al., 2007; Ruch et al., 2010; Ruch et al., 2011; Van Eeden et al., 2008). Currently, there is only little knowledge about the association between character strengths and domain-specific satisfaction (e.g., satisfaction with school experiences; e.g., Seligson et al., 2003). Weber and Ruch (2011) found the most substantial correlations between perseverance, love of learning and hope, and satisfaction with school experiences, with correlations of .42, .39, and .38, respectively. But currently, there is no knowledge about the association between character strengths and academic self-efficacy (i.e., expectations of competence to deal with requirements at school; e.g., Jerusalem & Satow, 1999).

Hence, the purpose of the present study was threefold. *First*, character strengths were examined with respect to their associations with positive school-related subjective outcomes like *satisfaction with school experiences*, and *academic self-efficacy*. Character strengths were expected to be positively associated with both outcomes in the present study.

The *second* aim was to examine the associations between the 24 character strengths and positive classroom behavior as well as school success as an objective outcome in school. It was strongly assumed that the good character was positively related to observable positive

[1] Peterson (2006) distinguished using ipsativized data between character strengths of the *mind* (e.g., open-mindedness, perseverance) vs. character strengths of the *heart* (e.g., humor, love), and character strengths with *focus on self* (e.g., creativity, hope) vs. character strengths with *focus on others* (e.g., teamwork, forgiveness).

classroom behavior. Furthermore, we expected certain character strengths (e.g., perseverance, love of learning) to be related to positive classroom behavior – in the following labeled as classroom-relevant character strengths. Positive classroom behavior was expected to be predictive for school success. Consequently, classroom-relevant character strengths were expected as influential on school success mediated through positive classroom behavior.

Third, the final purpose of this exploratory study was to investigate the role of character strengths in the development of grades within the first year of secondary school. Because the good character leads students to doing the right thing (Peterson & Park, 2006), it was expected that students with different degrees of character strengths would react in different ways to the information on grades in the middle of the school year. Students with a higher level of specific character strengths (e.g., self-regulation) were expected to exert more effort to achieve better grades compared to students with lower levels of those character strengths.

Method

Participants

We collected both *students' self-reports* as well as *teacher-ratings*. The sample of *students* consisted of 247 German-speaking Swiss (46.6% boys and 53.4% girls) from 14 classrooms of 3 secondary schools. Their mean age was 11.77 years (*SD* = 0.65; ranging from 10-14 years). About four fifth of them (78.9%) attended secondary school (highest education level; e.g., needed for higher education like university), 12.2% attended secondary school (medium education level; e.g., normal learning tempo, needed for a demanding apprenticeship), and 8.9% attended secondary school (lowest education level; i.e., adapted learning tempo, needed for an apprenticeship as, e.g., manufacturer or in the industry).

The sample of *teachers* consisted of 12 German-speaking Swiss (two of the total of 14 did not provide ratings on students' classroom behavior). They had a mean age of 47.17 years (*SD* = 11.32; ranging from 29-61 years) and two thirds were female (66.67%). All in all,

teachers provided ratings for a subsample of $N = 187$ students (age: $M = 11.81$, $SD = 0.66$; ranging from 10 to 14 years; gender: 53.5% girls; education: 72.7% highest level; 15.5% medium level, and 11.8% lowest level).

Instruments

The *Values in Action Inventory of Strengths for Youth* (*VIA-Youth*; Park & Peterson, 2006) adapted to German by Ruch et al. (2011) consists of 198 items for the self-assessment of the 24 character strengths of the VIA classification (Peterson & Seligman, 2004). There are 7-9 items per character strength, and about one third of the items are reverse coded. The VIA-Youth uses a 5-point Likert-style format (from 1 = *not like me at all* to 5 = *very much like me*). A sample item is "I believe that things will always work out no matter how difficult they seem now" (hope). The VIA-Youth proved to be a reliable and valid measurement (e.g., Park & Peterson, 2006; Ruch et al., 2011; Van Eeden et al., 2008). The internal consistencies of the 24 scales showed a median of $\alpha = .77$ in this study. Following Peterson (2006), an oblique factor analysis extracting two components based on ipsativized scores (i.e., obtained by subtracting the individuals' mean over all 24 character strengths from each of the individuals' 24 character strengths) of the 24 character strengths yielded two further variables (i.e., two dimensions; see Figure 1 for the plot of the two components).

Figure 1 shows one component that discriminated between character strengths of the *mind* vs. the *heart*, and a second component that discriminated between character strengths with *focus on self* vs. *focus on others*. Higher factor scores on the first component represent character strengths of mind, and higher factor scores on the second component represent character strengths with focus on self. The larger the distance between two character strengths, the more unlikely it is that the same individual owns both of them (Peterson, 2006).

The *Brief Multidimensional Students' Life Satisfaction Scale* (*BMSLSS*) used in the present study is a German translation of the BMSLSS (Seligson et al., 2003). It is a five-item measure of domain-specific satisfaction (family life, friendships, school experiences, self,

living environment), and it uses a 7-point Likert-style format (from 1 = *terrible* to 7 = *delighted*). A sample item is "I would describe my satisfaction with my school experiences as:…". The BMSLSS has been found as a reliable and stable measure (e.g., Huebner et al., 2011). The present study focused only on the school-related item, which showed a correlation of $r = .53$ with the complete school subscale of the lengthier Multidimensional Students' Life Satisfaction Scale (Seligson et al., 2003) indicating satisfying convergent validity.

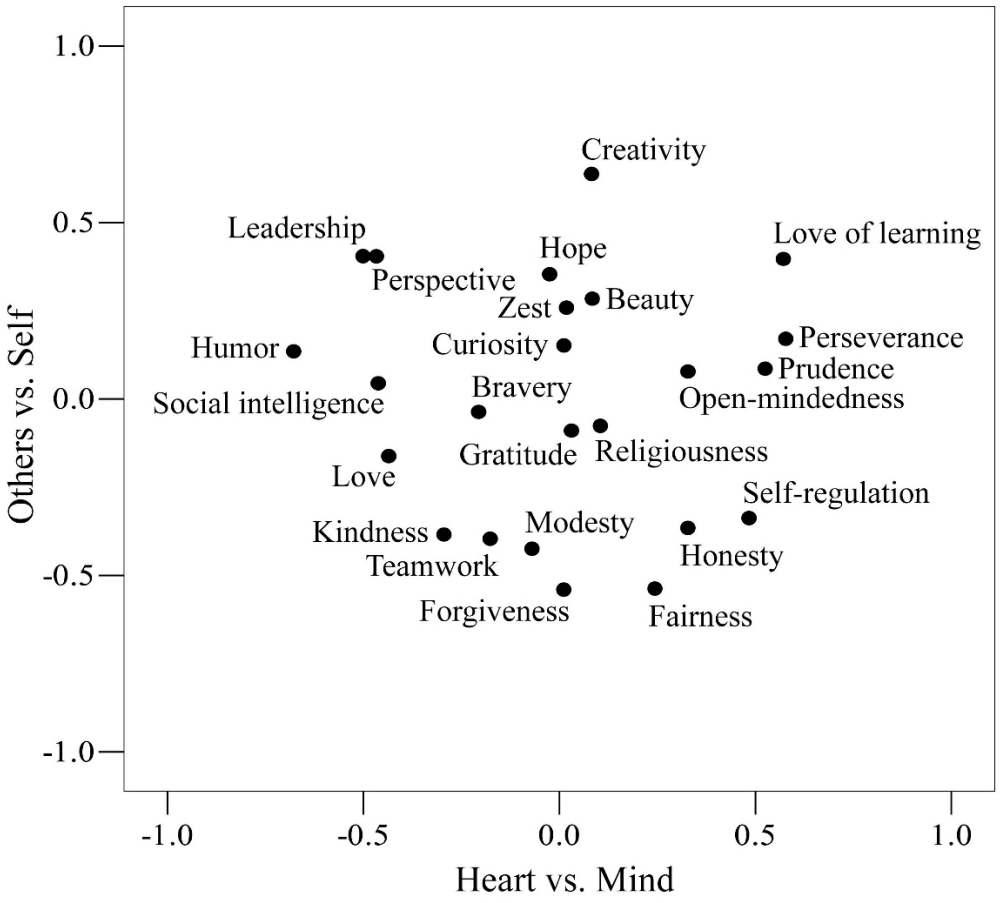

Figure 1. Loading plot of a two-dimensional representation of ipsativized character strengths. Component 1 reflects heart-related vs. mind-related character strengths. Component 2 reflects others-related vs. self-related character strengths.

The *Academic Self-Efficacy Scale* (*ASE*; Jerusalem & Satow, 1999**)** consists of 7 items (one is reverse coded) using a 4-point Likert-style format (from 1 = *strongly disagree* to 4 = *strongly agree*). A sample item is "I can even master the difficult tasks at school if I try hard". The ASE had a high internal consistency in the present study (α = .83).

The *Classroom Behavior Rating Scale* (*CBRS*; Weber, 2009) is a teacher rating form - developed for this study - for the context-specific assessment of teachers' daily perception of students' positive classroom behavior. The CBRS consists of 10 items, which cover both achievement-related and social aspects of positive classroom behavior (i.e., the student… [1] is motivated to perform, [2] is diligent, [3] shows responsibility, [4] shows good engagement, [5] works autonomously, [6] shows appropriate conflict management, [7] is cooperative, [8] shows good conduct, [9] is orderly, and [10] is dependable and accurate). The scale uses a 5-point Likert-style format (from 1 = *not like him/her at all* to 5 = *very much like him/her*). The dimensionality of the CBRS (all 10 items) was tested using principal component analysis. One eigenvalue exceeded unity (eigenvalues were 6.17, 0.97, 0.65, 0.55, 0.44, 0.34, etc.), and parallel analysis (Horn, 1965) suggested unidimensionality as well. This single factor explained 61.73% of the variance. The median of all corrected item-total correlations was .72, and the CBRS showed a high internal consistency in the present study of α = .93.

School success was operationalized computing students' grade point averages (GPA). In order to get a strong success marker we intentionally focused only on the success in the two most important courses (i.e., German and mathematics) in the present study based on intermediate grades in the middle of the school year (January) as well as final grades at the end of the school year (July). Grades were coded on a scale ranging from 1 = *very poor* to 6 = *excellent* (allowing for half points).

Procedure

Data in this study were collected over a whole school year in three schools (located in a small town [~14'500 inhabitants]) representing three different, typical levels of education to

get a more heterogeneous sample of students. Different types of information came from different stages in this school year. Students started in August in the first class of the (for them new) secondary school. In the third month (October) of the school year students' self-reports as well as teacher-ratings were collected. Students filled in the self-reports in the regular classroom setting (i.e., groups of 20-25 students) supervised by an instructed teacher (i.e., following standardized instructions) without knowledge about the research questions. The teachers filled in the CBRS separately. School offices provided confidential information from the students' school reports (grades in German and in mathematics) in the middle of the school year in January, and final grades at the end of the school year in July. Information on grades collected on two occasions provided the chance to compute differences in grades between January and July as an indicator of grade development (i.e., improved vs. decreased grades).

All participants attended voluntarily, and all students provided the permission of their parents or legal guardians beforehand. None of the students was paid for participation. All students received written individualized feedback on their character strengths and additional information on the meaning of each of the character strengths of the VIA classification.

Results

Preliminary analyses

To investigate whether participants' demographics like gender, age, and level of education showed a significant relationship to any variables analyzed for the research questions, t-tests were computed with gender as grouping variable. Furthermore, correlations between age and level of education, and self-reported variables, teacher-rated variables and GPAs were computed. Results are reported in Table 1.

Table 1 shows that most character strengths were not related to gender, age, and level of education. However, as already shown by Ruch et al. (2011) girls were found to be more likely to report higher scores in beauty (d = .64) and kindness (d = .49). Furthermore,

religiousness correlated slightly positive with age. Higher scores in modesty and hope went along with a higher level of education, whereas higher scores in religiousness went along with a lower level of education. Additionally, boys were more likely to report higher scores in satisfaction with school experiences (d = .36) as well as higher scores in academic self-efficacy (d = .32). Satisfaction with school experiences was found to be positively correlated with the level of education. Furthermore, teacher-rated students' positive classroom behavior showed gender differences, positive relations to level of education, but no age effects.

Table 1. *Gender Differences in Investigated Variables, and Correlations between Investigated Variables, and Age and Level of Education*

	Boys			Girls					Correlations with	
Variables	*N*	*M*	*SD*	*N*	*M*	*SD*	*df*	*t*	Age	Edu
VIA-Youth										
Creativity	115	3.72	0.67	132	3.77	0.64	245	-0.63	-.01	-.03
Curiosity	115	3.53	0.53	132	3.51	0.57	245	0.24	-.04	.06
Open-mindedness	115	3.61	0.55	132	3.54	0.57	245	0.91	.08	-.04
Love of learning	115	3.65	0.66	132	3.63	0.68	245	0.15	.02	.01
Perspective	115	3.67	0.54	132	3.74	0.52	245	-1.05	-.01	.06
Bravery	115	3.68	0.58	132	3.71	0.58	245	-0.40	.03	-.02
Perseverance	115	3.80	0.59	132	3.76	0.59	245	0.49	.11	-.04
Honesty	115	3.73	0.66	132	3.79	0.60	245	-0.78	.06	.02
Zest	115	3.82	0.57	132	3.76	0.54	245	0.83	-.01	.03
Love	115	4.11	0.59	132	4.19	0.52	245	-1.18	.04	.02
Kindness	115	3.88	0.60	132	4.16	0.53	245	-3.86***	.07	-.09
Social intelligence	115	3.80	0.55	132	3.78	0.47	245	0.26	.03	.03
Teamwork	115	4.01	0.56	132	4.03	0.50	245	-0.25	.03	.03
Fairness	115	3.60	0.54	132	3.65	0.52	245	-0.72	.01	.01

(Table continues)

Table 1 (continued)

	Boys			Girls					Correlations with	
Variables	*N*	*M*	*SD*	*N*	*M*	*SD*	*df*	*t*	Age	Edu
Leadership	115	3.36	0.64	132	3.43	0.62	245	-0.88	.00	.00
Forgiveness	115	3.96	0.67	132	3.96	0.57	224	0.00	-.01	.12
Modesty	115	3.54	0.47	132	3.53	0.47	245	0.13	-.08	.20**
Prudence	115	3.58	0.55	132	3.48	0.56	245	1.35	-.06	.00
Self-regulation	115	3.60	0.60	132	3.51	0.60	245	1.25	.04	.00
Beauty	115	3.51	0.66	132	3.91	0.59	245	-5.07***	-.02	.04
Gratitude	115	4.22	0.54	132	4.28	0.44	245	-0.91	.04	-.04
Hope	115	3.98	0.55	132	3.92	0.55	245	0.87	-.05	.14*
Humor	115	3.97	0.63	132	4.05	0.67	245	-0.95	.02	.04
Religiousness	115	3.53	0.95	132	3.68	0.88	245	-1.33	.15*	-.29***
Further self-reports										
BMSLSS - School	114	5.78	1.17	126	5.31	1.42	238	2.79**	.00	.22***
ASE	115	3.26	0.47	128	3.11	0.47	241	2.50*	-.02	.12
Teacher-rating										
CBRS	87	3.93	0.67	100	4.23	0.62	185	-3.15**	-.08	.29***
Grades										
GPA January	114	4.63	0.45	126	4.70	0.44	238	-1.20	-.13*	.11
GPA July	110	4.63	0.42	123	4.68	0.40	231	-0.91	-.17*	.27***

Note. *N* for correlations = 187-247. *Age* = 10 to 14 years. *Edu* = Level of education (1 = lowest level to 3 = highest level). BMSLSS – School = Brief Multidimensional Students' Life Satisfaction Scale (item: satisfaction with school experiences). ASE = Academic self-efficacy scale. CBRS = Classroom Behavior Rating Scale. *$p < .05$. **$p < .01$. ***$p < .001$.

Teachers rated girls as more likely to show positive classroom behavior than boys (d = .46). Positive classroom behavior was also positively related to level of education.

Younger participants seemed to show higher GPAs in both January and July. There was also an effect on school year final grades (July) by level of education – the higher the level of education the higher the GPA at the end of the school year. All in all, the analyses showed that some of the variables studied were related to participants' gender, age, and/or level of education. For that reason we decided to control the following analyses for influences of students' demographics.

Analyses of research questions

Examining the relationships between character strengths and satisfaction with school experiences, academic self-efficacy as well as positive classroom-behavior, partial correlations (controlling for gender, age, and level of education) were computed. Table 2 shows the correlation coefficients between the VIA-Youth scales and the school-related item from the BMSLSS, the ASE total score as well as the CBRS total score.

Table 2. *Partial Correlations Between Character Strengths and Satisfaction with School Experiences (BMSLSS), Academic Self-Efficacy (ASE) and Positive Classroom Behavior (CBRS)*

Variables	BMSLSS	ASE	CBRS
Creativity	.10	.44***	.03
Curiosity	.19**	.38***	.07
Open-mindedness	.09	.41***	.05
Love of learning	.26***	.50***	.29***
Perspective	.11	.47***	.11
Bravery	.12	.40***	.05
Perseverance	.20***	.49***	.32***
Honesty	.13*	.39***	.22**
Zest	.25***	.46***	.23**

(Table continues)

Table 2 (continued)

Variables	BMSLSS	ASE	CBRS
Love	.18**	.40***	.10
Kindness	.08	.31***	.07
Social intelligence	.13	.41***	.13
Teamwork	.16*	.45***	.16*
Fairness	.15*	.31***	.08
Leadership	.06	.35***	.10
Forgiveness	.16*	.15*	.05
Modesty	.14*	.09	.01
Prudence	.16*	.49***	.28***
Self-regulation	.15*	.37***	.19*
Beauty	.12	.33***	.07
Gratitude	.25***	.48***	.18*
Hope	.15*	.54***	.18*
Humor	-.03	.22**	-.14
Religiousness	.07	.25***	.05

Note. N = 187 (CRBS) - 243 (BMSLSS; ASE). All correlations were controlled for gender, age, and level of education. *p < .05. **p < .01. ***p < .001.

Relationships between character strengths, and satisfaction with school experiences and academic self-efficacy. Table 2 shows that all significant correlations between 24 character strengths, and the single item measure of satisfaction with school experiences (BMSLSS) were positive. As expected character strengths were related to satisfaction with school experiences, and specific character strengths seemed to be more relevant than others. Love of learning, zest, gratitude, and perseverance showed the most substantial correlations with satisfaction with school experiences (rs = .26 - .20). Additionally, curiosity, love, forgiveness, teamwork, prudence, hope, fairness, self-

regulation, modesty, and honesty showed noteworthy associations with satisfaction with school experiences (rs = .19 - .13).

A good character seemed to be very relevant for academic self-efficacy (see Table 2); all character strengths (except modesty) were statistically significantly related to academic self-efficacy. Hope, love of learning, perseverance, prudence, gratitude, perspective, zest, teamwork, creativity, open-mindedness, social intelligence, love and bravery showed the most substantial correlations with academic self-efficacy (*r*s = .54 - *r* = .40).

As expected, the good character was shown to be associated with two important subjective outcomes in school. Students with higher degrees in certain character strengths described themselves as more satisfied with school experiences and more academic self-efficacious.

Relationships between self-reported character strengths and teacher-rated positive classroom behavior. Table 2 shows positive relationships between self-reported character strengths, and teacher-rated positive classroom behavior. These relationships mean that the good character was generally found relevant for positive classroom behavior. A hierarchical multiple regression analysis (controlling for gender, age and level of education in the first step) showed that self-reported character strengths entered in the second step explained about 25.2% of the variance in teacher-rated positive classroom behavior ($F_{change}[24, 159] = 2.75$, $p < .001$). Perseverance, love of learning, prudence, zest, honesty, self-regulation, hope, gratitude and teamwork seemed to be the most relevant character strengths for positive classroom behavior (with correlation coefficients between $r = .32$ to $r = .16$; see Table 2).

Additionally, when analyzing the associations between character strengths and the 10 single aspects of positive classroom behavior kindness and social intelligence seemed to be also relevant for classroom behavior. Kindness and social intelligence were found as

positively associated with adequate conflict behavior (r = .20/r = .24) and cooperativeness (r = .19/r = .18).

To sum up, the character strengths of perseverance, love of learning, and prudence, which are all character strengths of the mind, were most strongly associated with positive classroom behavior (see Figure 1; cf. Peterson, 2006). This concurs with the expectation that character strengths of the mind might be more relevant in the context of school than character strengths from the other three areas.

Relationships between two axes of self-reported character strengths (heart vs. mind; focus on self vs. focus on others) and school success. Character strengths of the mind were expected to be correlated with school success. For an examination of these relationships, partial correlations (controlling for age, gender, and level of education) between factor scores of the heart vs. mind axis, and factor scores of the focus on self vs. focus on others axis were correlated with both GPA in January and GPA of school years final grades in July. Results showed that higher scores in mind-related character strengths (e.g., prudence, self-regulation, perseverance, love of learning) were associated with higher school success in the middle and at the end of the school year, with r = .19 and r = .17 (both $p < .01$), respectively.

Relationships between teacher-rated positive classroom behavior and school success. Partial correlations (controlling for gender, age, and level of education) between the CBRS and school success (i.e., GPAs for both times January and July) were computed. Results showed that there were substantial positive relationships between positive classroom behavior and school success in both January and July with r = .35 and r = .29 (both $p < .001$), respectively.

A model about the association among certain character strengths, positive classroom-behavior, and school success. As demonstrated in the foregoing reported analyses certain character strengths (i.e., love of learning, perseverance, and prudence) were

substantially related to positive classroom behavior and school success (as character strengths of the mind). Furthermore, positive classroom behavior was found to be related to school success as well. To test the hypothesis that specific character strengths are predictive for positive behavior in the classroom, which in turn leads to more school success, a path model was computed using structural equation modeling procedures (Arbuckle, 2010; see Figure 2). As both the CBRS and the GPA at the end of the school year were influenced by demographics (i.e., gender, age, level of education), both variables were corrected for these influences. In our analyses we used the residuals of two regression analyses with demographics as predictor variables and CBRS as well as GPA at the end of school year as criterion variables.

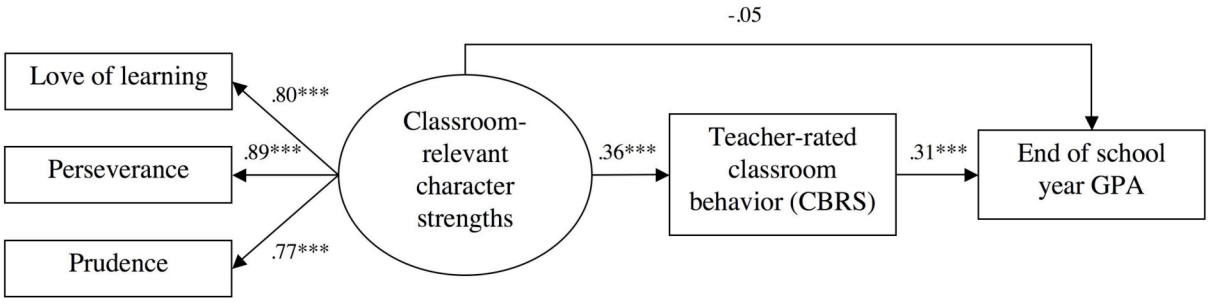

Figure 2. Standardized coefficients for a model about the role of classroom-relevant character strengths for school success ($N = 187$). Latent constructs are shown in ellipses, and observed variables are shown in rectangles. ***$p < .001$.

The model presented in Figure 2 showed a good fit to the data ($\chi^2[4] = 4.05$, $p = .40$; AGFI = .97; CFI = 1.00; and RMSEA = .008). As expected, there were direct effects from the latent variable *classroom relevant character strengths* (defined by the manifest variables love of learning, perseverance, and prudence) on teacher rated *classroom behavior* as well as from teacher rated *classroom behavior* on *end of school year GPA*. Furthermore, as expected, a highly significant indirect effect from classroom relevant character strengths through classroom behavior on end of school year GPA was found (indirect effect = .113; $p < .001$;

with a bias corrected 95% confidence interval ranging from .061 to .178 using 5000 bootstrap samples). To sum up, this model highlighted the importance and the influential role of certain character strengths in school context, because this model combined different sources of data including self-reported character strengths, teacher-rated classroom behavior, and information on grades provided by the school reports.

Effects of self-reported character strengths, satisfaction with school experiences, and academic self-efficacy on development in grades. To test whether specific degrees in 24 character strengths, satisfaction with school experiences, and academic self-efficacy lead to different development in grades from January to July, a discriminant function analysis was undertaken with 26 self-reported independent variables and two groups (grades improved vs. decreased) as the classification variable. The classification variable was computed in two steps. First, the difference scores between GPA in January and GPA in July were computed. Second, scores below zero represented students with increased grades, zero scores represented students with constant grades, and positive difference scores represented students with decreased grades. The classification variable distinguished between improvers vs. decreasers; the constant group has not been considered in this analysis.

The discriminant function analysis showed an eigenvalue of 0.35, a canonical correlation of 0.51, and a Wilks' Lambda of 0.74 ($\chi^2 = 41.68$, $df = 26$; $p = .026$). The most substantial marker variables of this axis were perspective, gratitude, hope, self-regulation, teamwork, prudence, love, bravery, honesty, social intelligence, and fairness (with within-groups correlations between discriminating variables and canonical discriminant functions between $r = -.40$ to $r = -.21$). This axis discriminated between the two groups in the expected way: Improvers showed a mean of $M = -.60$, whereas decreasers showed a mean of $M = .58$. The difference between both groups was significant ($t[151] = -7.30$; $p < .001$). The overall percentage of correctly classified cases was 73.90%. Furthermore, means of the students'-

reported independent variables were inspected. Figure 3 presents the means for each of the 24 character strengths in two different groups (grades improved vs. decreased).

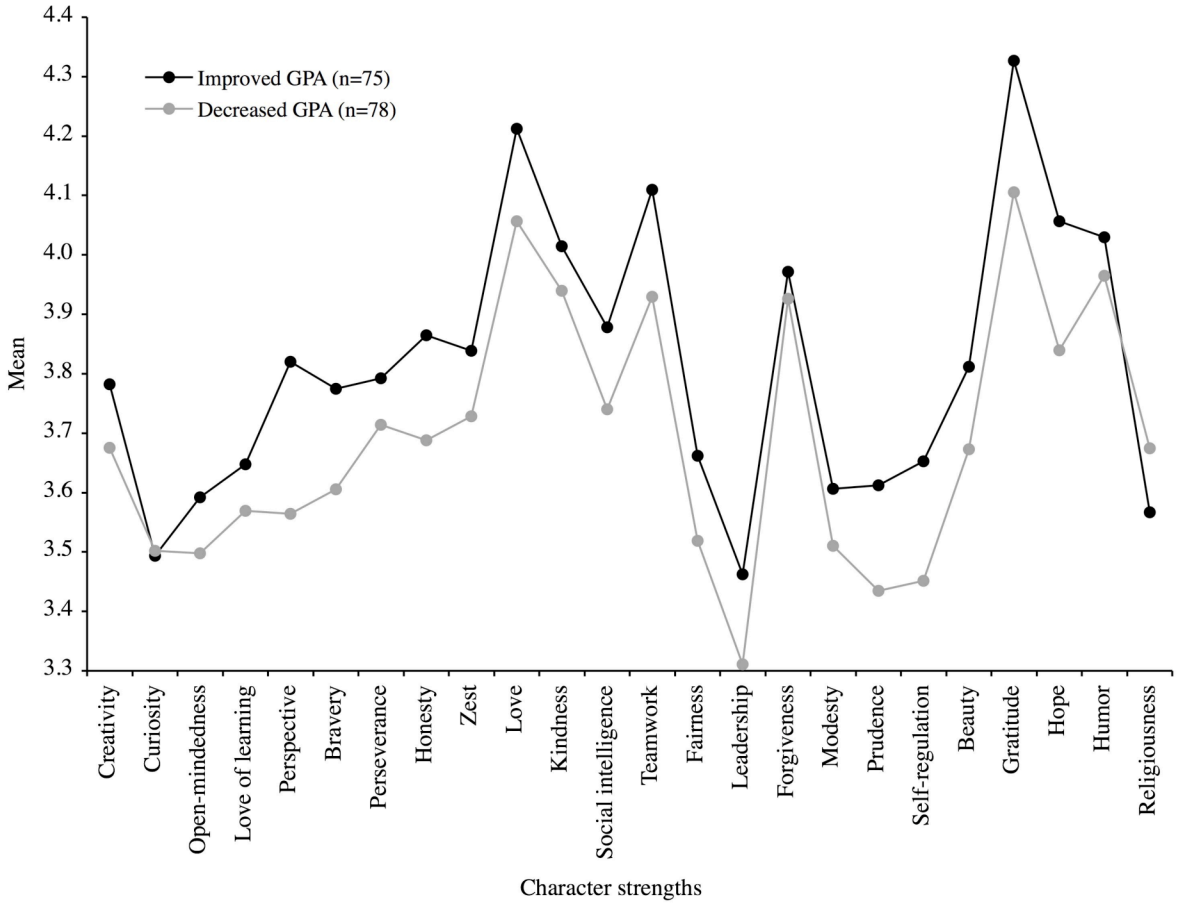

Figure 3. Means in character strengths of students from two different groups of development in GPAs from January to July.

Figure 3 shows that means of most of the character strengths were numerically higher for students that showed improved grades at the end of the school year (compared to the middle of the school year). *Perspective* (F[1, 151] = 8.49, $p < .01$), *gratitude* (F[1, 151] = 7.00, $p < .01$), *hope* (F[1, 151] = 6.00, $p < .05$), *self-regulation* (F[1, 151] = 4.55, $p < .05$), and *teamwork* (F[1, 151] = 4.39, $p < .05$) were found to have substantial differences in means tested by univariate analyses, indicating that certain character strengths were relevant for the improvement of grades. Furthermore, there were no mean differences between students with improved vs. decreased grades in satisfaction with school experiences

(BMSLSS) and academic self-efficacy (ASE). That means that development of grades (improve vs. decrease) seems to be independent from satisfaction with school experiences and academic self-efficacy (ASE) in this period of time (i.e., one half of a school year). Consequently, only character strengths were identified as being relevant for the improvement in grades in such a short period of time of a school year.

Discussion

The present study was designed to investigate the role of a multidimensional model of morally valued character strengths in schools. In doing so, we propose an answer to a recently asked question by Huebner and Hills (2011): Yes – the Positive Psychology movement has legs, already for 12-year-old children in schools! Character strengths seem to matter in different important contexts at school (i.e., students' subjective experiences, positive classroom behavior, positive objective outcomes like good grades). These results are very encouraging, and seem to open a new field of research (i.e., it has legs to stand on), rather than being a passing fad, but surely we need further evidence. Another question came from Wentzel (1993) who asked: "Does being good make the grade?" Here we can clearly answer: Yes, in an indirect way! It seems that being good (i.e., having a good character) has a direct influence on how students behave in the classroom, which in turn is clearly associated with school success (i.e., GPA). For the first time, we investigated the role of character strengths related to a variety of important topics for children in schools (i.e., school satisfaction, academic self-efficacy, positive classroom behavior, development of grades). But what can we learn from the results of this initial study?

First, character strengths seem to be relevant for satisfaction with school experiences. We already know from previous research (e.g., Park & Peterson, 2006; Ruch et al., 2011; Van Eeden et al., 2008) that certain character strengths (i.e., love, hope, gratitude, and zest) are substantial predictors of global life satisfaction. In addition, specific character strengths seem to be important in specific contexts like school. This makes sense as students who

possess the character strength of love of learning "have positive feelings about learning new things" (Peterson & Seligman, 2004, p. 169). Zest and gratitude were already found to be relevant for general life satisfaction, but it seems plausible that zest (e.g., being awake and alert; Peterson & Seligman, 2004) is advantageous in school setting as well – otherwise, if students are inattentive or shiftless, school might become a very boring, unsatisfying experience. Furthermore, grateful individuals are per definition thankful for the parenting they received (Peterson & Seligman, 2004); they might also be thankful for the received education at school. The character strength of perseverance is expected as "enhancing the person's enjoyment of subsequent success" (Peterson & Seligman, 2004, p. 238). If students attain difficult goals at school because of their persistence, they may experience higher school-related satisfaction. Future research with focus on satisfaction in schools may consider this when designing prevention or intervention programs for the improvement of students' school satisfaction.

Second, character strengths seem to be relevant for academic self-efficacy. Previous research showed (Ruch et al., 2011) that most character strengths (e.g., hope, perspective, creativity, zest) are strong predictors of general self-efficacy. The present research indicates that specific aspects of the good character (i.e., hope, love of learning, perseverance, prudence, gratitude, perspective, zest, and teamwork) are most relevant for context-specific self-efficacy as well. Future research is needed to develop strategies to enhance character strengths that are important for academic self-efficacy.

Positive Psychology is interested in studying positive institutions (e.g., Seligman & Csikszentmihalyi, 2000). Therefore, it might be a useful attempt to focus on those character strengths identified in the present study to be substantially associated with positive subjective school outcomes like school satisfaction or academic self-efficacy. That might improve positivity in schools, and school would become a more positive institution.

Third, character strengths of the mind (Peterson, 2006) seem to be directly relevant for objective school success. We learned from prior studies on the relationships between character strengths and school success (Lounsbury et al., 2009; Park & Peterson, 2006) that certain character strengths (e.g., perseverance, open-mindedness, self-regulation, love of learning, prudence) are associated with school success (i.e., operationalized with a broad variety of grades in different courses). We found a moderate relationship between character strengths of the mind (e.g., perseverance, love of learning, open-mindedness, self-regulation) and objective school success. Against the background that we did not share the same method variance in the data analyzing these associations, the significant moderate associations between character strengths of the mind and the GPAs are much more noteworthy. Future research should substantiate these findings that might be useful for the whole education sector (e.g., students, teachers, school psychologists etc.).

Fourth, character strengths seem to be relevant for positive behavior in the classroom. This association is worth highlighting, because in the present study trait-like character strengths (on a self-reported general level) were investigated together with very context-specific ratings on classroom behavior, where teachers were instructed to make judgments regarding students' specific behavior at school (vs. in general like in the students' self-reports). As expected, we found that the good character can explain a considerable amount (about one fourth) of the variance in positive classroom behavior. Furthermore, our findings suggest that certain character strengths are more classroom-relevant than others. The three character strengths that showed the strongest associations with classroom behavior were perseverance, love of learning, and prudence, respectively. This is meaningful as perseverant students continue goal-directed actions in spite of obstacles or difficulties, students, who possess love of learning would rate learning as a positive experience, and prudent students are cognitively oriented in their personal future, and in achieving long-term goals effectively via practical reasoning (Peterson & Seligman, 2004).

Fifth, as certain character strengths are predictive for positive classroom behavior, and classroom behavior is predictive for school success, we tested successfully the predictive power of classroom-relevant character strengths (i.e., love of learning, perseverance, and prudence) on school success mediated through positive classroom behavior. De Raad and Schouwenburg (1996) highlighted the role of *persistence* in educational context. We detected further personality characteristics (i.e., love of learning, prudence) that seem to be relevant for objective school success of 12-year-old children. The present research shows clearly that certain character strengths lead to positive, success-relevant classroom behavior. But life at school is composed of different aspects; future studies should investigate further criteria (e.g., participation at extracurricular programs like sport, art or music programs etc.) to enlarge the knowledge on the role of character strengths at school in a broader, more comprehensive way.

Sixth, character strengths seem to be relevant whether students are able to improve their grades within half of a school year. This is in line with a core definition of good character, which means that the role of good character is to know and desire the good which leads to do the good and right (e.g., Peterson & Park, 2006). Students who increased their grades from the middle to the end of school year clearly show a good character (marker variables for improvers were perspective, gratitude, hope, self-regulation, teamwork, prudence, love, bravery, honesty, social intelligence, and fairness). There is a link to a recent meta-analysis by Durlak et al. (2011) that showed that the enhancement of positive core competencies like *self awareness* (related to social intelligence), *self management* (related to self-regulation), *social awareness* (related to social intelligence), *relationship skills* (related to love, teamwork), and *responsible decision making* (related to prudence) improved academic performance (e.g., school grades). Without concrete expectations, the present exploratory research indicates specific character strengths that seem to be relevant for doing the right things for being successful at school. As it is postulated that character strengths are

trait-like, but not fixed, immutable personality characteristics (Peterson, 2006) the current results might be considered when designing intervention programs for the improvement of school success. Nevertheless, future studies are needed to replicate the present findings.

These initial findings need to be interpreted in the context of some limitations. The investigated sample consists mostly of students from schools with higher level of education (about four fifth). This did not affect the results of the present study, as analyses were corrected for effects of level of education, but future studies should collect samples that are more balanced, which allows, for example, for a comparison of the results between groups of students with different levels of education. Furthermore, the results can only be interpreted in the investigated age group (about 12-year-olds). Future research may replicate and add findings investigating younger and older students to get information for different developmental stages of the students. As indicated by the results of Laidra et al. (2007), who detected conscientiousness and agreeableness as school-relevant, but in different age-groups, different character strengths also may be relevant at school in different age-groups. Although not considered in the present theoretical model, future studies might incorporate additional personal and environmental variables to explore the full nomological network of variables that may relate to the development of individual differences in character strengths, school behavior, and academic outcomes. Variables such as students' intelligence levels, parent socialization practices, peer relationships, and teacher behavior might be promising candidates for such an extended model.

To conclude, from the perspective of Positive Psychology the good character is seen as supporting the positive adaptation process of children and adolescents' and hence, to be important for positive youth development in general (e.g., Park, 2004). This study shows that the good character clearly matters in 12-year-old school children. Specific character strengths have been found to be predictive for both, positive subjective experiences as well as positive objective school outcomes. Furthermore, the good character was found to be relevant for

positive behavior in the classroom, which is needed for school success. These first findings on this topic in this age-group may help teachers, school psychologists, or other educational practitioners to understand students from the perspective of Positive Psychology, which is helpful to get a broader, more comprehensive view on students in an often too deficit-focused world. This study shows that it is worth studying the good character in context of schools, because it helps to learn a lot for essential prevention or intervention programs that will support students, teachers, and schools to flourish.

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General Discussion

This doctoral dissertation is embedded in the theoretical framework of positive psychology (Seligman & Csikszentmihalyi, 2000) as the scientific study of (1) positive subjective experiences (e.g., global life satisfaction, general self-efficacy), (2) positive individual traits (e.g., character strengths), and (3) positive social institutions (e.g., romantic relationships, schools). Those factors are postulated as needed to live a *fulfilled, satisfied life* in childhood and adolescence. Before starting this thesis, only little evidence existed, and the evidence was restricted to the English-language area. Therefore, the present thesis pursued two purposes. First, two important positive psychological constructs (i.e., good character and global life satisfaction) for the investigation of a good life in childhood and adolescence were successfully adapted for German-speaking samples. Second, character strengths and life satisfaction (among other variables) were studied in children's and adolescents' lives, with a closer look on two important life-domains (i.e., adolescent romantic relationships and schools). This general discussion will sum up in a first step the most relevant findings. This will be followed by highlighting strengths but also limitations of this thesis, and by giving an outlook on currently running but also new research projects. This doctoral dissertation will be closed by highlighting the conclusions of this initial work on the good character in German-speaking young people.

What do we know *more* now?

In the following section the most relevant findings will be briefly summarized for the reader. I will start by reporting the results of the adaptation of two measures of positive psychological constructs (i.e., character strengths and global life satisfaction).

First, studying a sample of around 1.500 young people (aged 10-17 years) lead to the conclusion that character strengths are reliably and validly assessable in German-speaking children and adolescents. Self-reported and parent-rated character strengths converged well, which supports the construct validity of the German VIA-Youth. Tests of gender effects

revealed that girls were more likely to score higher than boys in character strengths. Certain character strengths show gender differences that have been emerged in both in self-reports as well as in parent-ratings, hence, girls seem to score higher in beauty, kindness, bravery, social intelligence, perspective, love, teamwork, and fairness. This is generally in line with results reported by Park and Peterson (2006a). Age effects were generally found as small in magnitude. There seems to be a slight decreasing trend from 10 to 17 year-old participants, which also is in line with prior research (Park & Peterson, 2006a). Nevertheless, the development of character strengths needs to be studied in more detail, for example, utilizing a longitudinal study design. The empirical factorial structure of the 24 German VIA-Youth scales is in line with findings found in an US sample reported by Gillham et al. (2011). This seems to be a meaningful (but not fixed) five-factor solution that shows the good character is (from the empirical perspective) composed of the higher-order strengths of leadership, temperance, intellect, other-directedness, and transcendence. Nevertheless, it is suggested that analyzing the full range of the 24 lower-order character strengths will provide more comprehensive information, enabling emergence of possible interactions among single aspects of the good character.

The good character was positively correlated with global life satisfaction, with zest, love, gratitude, and hope as the most potent predictors in German-speaking samples. This is fully in line with prior results (e.g., Gimenez et al., 2010; Park & Peterson, 2006a; Van Eeden et al., 2008). Additionally, a notable connection between character strengths and general self-efficacy was found. All character strengths, except modesty, showed significant positive associations. As an example, Catalano et al. (2004) highlighted self-efficacy as one aspect of positive youth development that should be fostered. Future research is needed to uncover the function of the relationship between character and self-efficacy in more detail, as it might be useful to study self-efficacy as a mediator variable linking character strengths and positive outcomes.

Second, studying a total sample of around 3.600 children and adolescents related to their global life satisfaction demonstrated that global life satisfaction is reliably and validly assessable in three German-speaking countries (i.e., Austria, Germany, and Switzerland). This applied to paper-pencil as well as to Internet-based research. Global life satisfaction has been found as a unidimensional construct that is moderately stable over time (cf. Huebner, 1991b). Scores of the German SLSS were slightly correlated with social desirability (cf. Proctor et al. 2009). Studying a heterogeneous Internet-sample, there was no effect of gender, but a small age effect reflecting a decreasing linear trend in global life satisfaction from ages 10 to 17, which is consistent with prior research (e.g., Goldbeck, Schmitz, Besier, Herschbach, & Henrich, 2007). This decreasing trend should be studied in more detail, as, for example, specific life events or specific challenges in special life stages might be relevant for this decrease.

As Heaven (1989) found for Australian students, higher life satisfaction was also associated with lower Psychoticism, higher Extraversion, and lower Neuroticism in Swiss students. Young people from different countries, namely Austria, Germany, and Switzerland showed mean differences in life satisfaction scores, similar to those found for adults (e.g., Veenhoven, 2011). Swiss students were the most satisfied, followed by Austrian and finally the German students. Furthermore, the German SLSS shows acceptable convergent validity (i.e., association with another measure on global LS). In line with Seligson et al. (2003) family and self-related satisfaction reports were the strongest domain-based correlates of global LS, whereas the school and living environment reports were among the weakest domain-based correlates.

In the next step, this thesis focused on the role of character strengths in two important life-domains of young people – in *romantic relationships* and at *school*. The following section will briefly summarize the main findings from this research.

Preliminary data analysis suggested that adolescent singles were less satisfied than

adolescents in a romantic relationship (Weber, 2011). This is one encouraging reason to study such a *positive* institution in more detail. It was of interest to explore what adolescents look for when selecting a partner, that is, the role of character strengths in partner selection, but also in the good character's role with respect to mates' life satisfaction. Therefore, *third*, 87 adolescent romantic couples were studied. Results suggest that the components of good character are helpful constructs in this context. Investigating partner selection, adolescents were directly asked for preferred character strengths in an "ideal" romantic partner (independent from the current one; i.e., consensual preferences). Furthermore, the participating couples have been studied for significant non-independence in character strengths (i.e., looking for assortative preferences). Honesty, humor, love, kindness, and hope were most preferred in an ideal partner. Honesty, hope, religiousness, and fairness showed the most substantial positive assortment coefficients. Furthermore, the own character strengths were the best predictors of one's own life satisfaction, but specific partners' character strengths (i.e., females' forgiveness; males' perseverance, social intelligence, and prudence) were predictive beyond targets' character strengths as well. Additionally, higher males' life satisfaction was related to similarity in perseverance and zest as well as to dissimilarity in forgiveness and humor. Higher female's life satisfaction was associated with similarity in honesty and teamwork. I think that these initial results on the role of the good character are useful, but specific analyses (e.g., comparisons of sub-groups) should be replicated utilizing a larger sample to get some more analytical power.

Fourth, the role of a multidimensional model of morally valued character strengths in schools was of interest. Character strengths seem to matter in different important contexts at school (i.e., students' subjective experiences, positive classroom behavior, positive objective outcomes like good grades). Specific character strengths (e.g., love of learning, zest, gratitude, perseverance) were predictive of satisfaction with school experiences. Hope, love of learning, perseverance, prudence, gratitude, perspective, zest, and teamwork have been

found as strongly associated with academic self-efficacy. Character strengths of the mind (cf. Peterson, 2006) seem to be directly relevant for objective school success. The findings suggest that character strengths, like perseverance, love of learning, and prudence are more classroom-relevant than others. Generally, the good character explained a considerable amount (about one fourth) of the variance in positive classroom behavior. Classroom-relevant character strengths (i.e., love of learning, perseverance, and prudence) predicted school success indirectly through positive classroom behavior. As a more explorative result, this research showed that students who increased their grades from the middle to the end of school year clearly showed a good character (marker variables for improvers were perspective, gratitude, hope, self-regulation, teamwork, prudence, love, bravery, honesty, social intelligence, and fairness).

Strengths and limitations

In the following I will focus on strengths but also on limitations of the research presented in this doctoral dissertation. This may help designing future studies on this topic.

Starting positively, one strength of this thesis might be that certain empirical results are based on several methods, like on self-reports, parent-reports, teacher-reports, and also objective data like school grades. Although this doctoral dissertation used several methods (e.g., self-reports, parent-reports etc.), the current findings (e.g., couples composed of two honest partners were more satisfied compared to all other combinations; perseverant students behave positively in class) should be replicated and for that validated using information from different sources, thus, future studies should include different methods. For example, observation strategies might be helpful for further validation of the results. As character strengths are, for example, postulated as manifest in individuals' behavior (Park & Peterson, 2006a), observing children or adolescents under controlled, specific conditions would help to study specific character strengths and their outcomes from another perspective. Most research questions in this thesis were studied in cross-sectional designs (exceptions are the test-retest

reliability in both part I and part II), which clearly prohibit causal statements with respect to the directionality between variables. Therefore, other designs might be useful to understand the findings of this thesis from another perspective. As a first step, currently a longitudinal study is running in its fourth data collection wave (started in October 2009). This study will give clues on the development of character strengths, but will also provide information on the causality between the good character and life satisfaction. Furthermore, longitudinal designs would facilitate research to explore developmental aspects in the positive institutions themselves (i.e., in relationships or in schools). Based on own experiences during this thesis, sometimes it seems to be easier to motivate students (but also their parents or friends) with higher educational level vs. those with a lower educational level to participate in scientific studies. For that reason, future studies should put emphasis on generating more heterogeneous samples from diverse schools that allow for comparisons between different subgroups (e.g., education level, age, regions etc.). Finally, future studies might consider further personal and environmental aspects (e.g., students' intelligence levels, parent socialization practices, peer relationships) that may relate to the development of individual differences in character strengths or life satisfaction.

Outlook

This doctoral dissertation gives a feedback on the role of the good character in two important life-domains (i.e., in romantic relationships, at school). Currently, several other studies are already finished or running on the role of character strengths and life satisfaction in childhood and adolescence. Therefore, although initial validity has been tested for the German VIA-Youth and German SLSS further results should be added soon to gain additional validity information in German-speaking samples for both adapted measures.

One very important result is that character strengths also have been found among German-speaking young people as potent predictors of their global judgments on life satisfaction. The good character is predictive of a higher life satisfaction. This aspect should

be studied in a more detailed manner to find out the special role of character strengths among other personality traits. Diener, Oishi, and Lucas (2003) concluded that we now know a lot about the relationships between traits like Extraversion, Neuroticism, and SWB (e.g., life satisfaction) as well as between narrow traits like trust, locus of control, hardiness, and SWB. However, Diener et al. (2003) further noted that it is unclear yet "whether these narrower traits uniquely predict SWB once the shared variance with traits such as Extraversion and Neuroticism is controlled" (p. 407). Therefore, it should be studied whether the 24 character strengths have incremental predictive power on global life satisfaction when controlling for classical personality dimensions, such as Extraversion and Neuroticism. Furthermore, character strengths should be investigated with respect to satisfaction with different life-domains, as it is assumed that specific character strengths are relevant for satisfaction in specific life-domains.

Additionally, other possible contributors to young people's life satisfaction need to be considered. For example, Peterson, Park and Seligman (2005b) distinguished between the full vs. empty life, focusing on three different ways (orientations) to happiness, called the *pleasant*, the *engaged*, and the *meaningful* life. People can live those lives in different degrees. Scoring on a high level in all of them reflects the full life, whereas low scores in all of them would reflect the empty life; all stages in between are possible. The three orientations to happiness have all been found to be predictive of global life satisfaction in adults (e.g., Peterson et al., 2005b; Ruch, Harzer, Proyer, Park, & Peterson, 2010). The best predictor is the engaged life, closely followed by the meaningful life. Also the pleasant life predicted life satisfaction, but typically showing a smaller coefficient. Currently, studies are running investigating Orientations to Happiness also in young people. One general, important question is whether the three orientations are also empirically distinguishable in this age group. Furthermore, those studies should detect if the different orientations are able to predict life satisfaction also in 10 to 17 year-olds.

Some ideas for next steps studying romantic couples. This thesis showed that the good character already matters in adolescent romantic couples (e.g., helpful for partner selection, mutual levels of high honesty are important for a couple to be called a positive institution). It might also be meaningful to study adult romantic relationships with respect to different outcomes. As the variance in relationship-duration might be higher in adult relationships, this might be a useful control variable when investigating assortative mating or couple similarity in adults, because couples might become more equal in selected characteristics with more time spent together. Moreover, a longitudinal design should follow adolescents up to higher adult ages to study the long-term-impact of specific character strengths (e.g., forgiveness, social intelligence, teamwork, honesty, humor etc.) on several relationship outcomes, like satisfaction, divorce rates, etc. Additionally, it might be interesting to study character strengths also in young people's friendships comparing the target person and a very close *un-romantic* friend. Close friendships perhaps depend also on specific strengths, which might be different from strengths that matter for romantic couples.

Some ideas for next steps studying character strengths at school. Character strengths are positively associated with school-related satisfaction and academic self-efficacy. Future research with focus on those positive subjective outcomes might consider this. As it is postulated that character strengths are trait-like, but not fixed, immutable personality characteristics (Peterson, 2006), the current results might be helpful when designing, for example, intervention programs for the improvement of positivity at school (e.g., improvement of self-efficacy). Future research is needed to develop strategies using knowledge on character strengths and their correlates in the school context. There has been the idea of *teaching well-being* at school. Focusing on positive education, Seligman, Ernst, Gillham, Reivich, and Linkins (2009) review programs improving students' well-being, additionally to the regular goal of schools – the pure achievement. Without giving concrete results of the current projects, they described that, for example, the *Geelong Grammar School*

Project focused on character strengths in one part of their curriculum. The idea was to give students a view on character strengths from different perspectives, for example, in the first lesson, without knowing their own character strengths, students were instructed to describe themselves in situations where they were *at their very best*. Following this, students filled in the VIA-Youth assessing their individual character strengths, and then they re-read their above-mentioned descriptions. Seligman et al. (2009) reported that at least two or three character strengths from their *top strengths* were identifiable in those stories in which they were described at their best. Other tasks were, for example, to "develop a family tree' of strengths, learning how to use strengths to overcome challenges, and developing a strength that was not among an individuals' top five" (Seligman, et al., 2009, p. 304). Their idea was to teach positive education (e.g., knowledge about the good character), but also to embed positive education in regular class. For example, language teachers used the VIA classification to identify the character of a novel's protagonist (Seligman et al., 2009). Other programs, for example the *Positive Psychology Programme*, used the knowledge on character strengths to use "signature strengths in a new way" (Seligman et al., 2009) as it has been found as useful for adults as well (Seligman, Steen, Park, & Peterson, 2005). A next research step in the German area might be to design a sophisticated intervention program to foster the effects that have been found cross-sectionally in this doctoral dissertation. Furthermore, other important topics at school might be added in research programs, hence, future studies might incorporate measures of students' absences (excused and un-excused), class climate (among students, but also with respect to the teachers), test anxiety, or bullying experiences.

Currently, some studies investigate the good character as well as different indicators of satisfaction (e.g., global life satisfaction, domain-specific satisfaction) in other important areas of young people's lives (e.g., family, leisure time). Peterson (2006) speculated on the *good family* highlighting the possible positive influence of authoritative parenting style (i.e., clear rules and parental support/warmth) vs. authoritarian (i.e., strict rules and *no* parental

support/warmth) on positive youth development. A currently running study will give initial answers on the associations of different parenting styles and the good character, but also on the relationship between parents' and children's strengths (cf. Park & Peterson, 2006a). In addition to studying parenting styles, it might be interesting to study character strengths and life satisfaction related to family climate (e.g., quality of parents' relationship, relationship to siblings etc.). One source underlying the VIA classification model was the bylaws of the Boy Scouts of America (cf. Peterson & Seligman, 2004). It is assumed that the programs of organized youth activities (e.g., scouts, YMCA, fire-fighter) will have an effect on character building. A currently running study comparing youth in organized vs. non-organized activities examines young people with respect on differences in character strengths scores, but also in global life satisfaction. One criterion for a character strength is the existence of paragons showing this characteristic on a high level. Those paragons might have an impact on character building in individuals that follow those paragons. Therefore, in a current running study, students are asked to identify paragons and to rate specific characteristics (e.g., character strengths) of their paragons. This study might give answers regarding whether there are similarities in the target's personality and the personality of the paragon.

Furthermore, the health context might be a useful field to study the role of the good character and satisfaction in more detail. Aspects like substance use (e.g., alcohol, cigarettes, other drugs), practicing sports, presence of physical handicaps, number of serious illnesses, BMI, etc., might be meaningful to study regarding the good character, but also in association with satisfaction.

Finally, I would like to highlight a specific result regarding *modesty*. Modesty showed no relationship to important positive subjective experiences like global life satisfaction or general self-efficacy. Does it not contribute to the good life? From the current perspective it is unclear how modesty contributes to a fulfilled life in childhood and adolescence.

Therefore, there is a need for future research to uncover the role of modesty for a good life in this age group.

General conclusions

First, the adaptation of a measure on the good character for German-speaking 10 to 17 year-olds has been finished and resulted in the reliable and valid German VIA-Youth. Furthermore, the good character was tested to be an important enabling factor for the good life (i.e., satisfied, self-efficacious) also among German-speaking children and adolescents (Ruch, Weber, Park, & Peterson, 2011). Second, the adaptation of a measure of an important outcome in young people's lives has been finished, and resulted in a reliable, valid, and brief measure of global life satisfaction, the German SLSS that might be a useful assessment tool for future research in this field (Weber, Ruch, & Huebner, in press). Third, character strengths are helpful when describing an ideal partner, but also to select a real partner. There was only positive assortment for character strengths (i.e., birds of a feather flock together). Furthermore, the own character strengths are the best predictors of the own life satisfaction, but also strengths of partners as well as couple's similarity in certain strengths are predictors of the targets' life satisfaction (Weber & Ruch, in press). Fourth, the good character seems to matter at school. It is related to satisfaction with school experiences, but also to academic self-efficacy. Furthermore, specific character strengths are predictive of positive behavior in the classroom, which further results in school success (Weber & Ruch, 2012).

All in all, this doctoral dissertation shows that it is worth studying the good character in different contexts of young people's lives, for example, in romantic relationships or in schools, because different character strengths seem to be relevant in different contexts. An approach that postulates 24 different morally valued character strengths (VIA classification; Peterson & Seligman, 2004) is useful for getting comprehensive information on individuals' good character. Such detailed knowledge may help young people themselves, their parents, but also youth counselors, teachers, school psychologists, or other topic-related practitioners

to understand young people from the perspective of positive psychology. It seems to be helpful to get a broader, more comprehensive view on children and adolescents in an often too deficit-focused world. Therefore, this doctoral dissertation added further knowledge on how to help youth to realize their full potentials in context-specific situations.

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Appendix

Appendix Part I

For copyright reasons, the German VIA-Youth is not printed here, but visible on www.charakterstaerken.org (children and adolescents' area). Interested people can fill in the VIA questionnaires (also the VIA-IS for adults) there and will get immediately feedback on their individual character strengths.

Appendix Part II

Items of the German Students' Life Satisfaction Scale (German SLSS; Weber, Ruch, & Huebner, in press)

1. Mein Leben läuft gut.
2. Mein Leben ist genau richtig so, wie es ist.
3. Ich würde gerne viele Dinge in meinem Leben ändern. (r)
4. Ich wünschte, ich hätte ein anderes Leben. (r)
5. Ich habe ein gutes Leben.
6. Ich habe das im Leben, was ich will.
7. Mein Leben ist besser als das der meisten anderen meines Alters.

Note. (r) = Item reverse scored.

Appendix Part III

Ideal Partner Profiler (IPP; Weber, 2008)

Wünschenswerte Stärken eines Traummannes/einer Traumfrau

Stell Dir vor, Du könntest am Computer Deinen Traumpartner/Deine Traumpartnerin entwerfen: Du hättest alle Möglichkeiten der Welt, diese/n Partner/in nach Aussehen, Charakter usw. selbst zu gestalten - auch die Charakterstärken. Welches wären die **wichtigsten fünf Stärken**, die Dein Idealpartner/Deine Idealpartnerin haben müsste? Es ist wichtig, dass Du genau fünf Stärken markierst; nicht mehr, aber auch nicht weniger. Bei der Aufgabe sollst Du nicht Deinen jetztigen Partner/Deine jetztige Partnerin beschreiben, sondern nur Stärken markieren, die ein erfundener Traumpartner/eine Traumpartnerin hätte.

○ Kreativität, Einfallsreichtum, Originalität	○ Teamfähigkeit und Loyalität
○ Neugier und Interesse	○ Fairness, Gleichheit und Gerechtigkeit
○ Urteilsvermögen, kritisches Denken, Aufgeschlossenheit	○ Führungsvermögen
○ Liebe zum Lernen	○ Vergebungsbereitschaft, Verzeihung, Gnade
○ Weitsicht, Tiefsinn (Weisheit)	○ Bescheidenheit, Demut
○ Tapferkeit, Mut	○ Klugheit, Vorsicht, Diskretion
○ Ausdauer, Beharrlichkeit, Fleiss	○ Selbstregulation, Selbstkontrolle, Selbstdisziplin
○ Ehrlichkeit, Aufrichtigkeit	○ Sinn für das Schöne
○ Tatendrang, Enthusiasmus, Begeisterungsfähigkeit	○ Dankbarkeit
○ Fähigkeit zu lieben, Bindungsfähigkeit	○ Hoffnung, Optimismus, Zuversicht
○ Freundlichkeit, Grosszügigkeit, Fürsorge	○ Humor, Verspieltheit
○ Soziale Intelligenz, soziale Kompetenz	○ Religiosität, Spiritualität, Glaube

Appendix Part IV

Classroom Behavior Rating Scale (CBRS; Weber, 2009)

Hier bitten wir Sie nun, ausgewählte Merkmale dieser Schülerin/dieses Schülers einzuschätzen – so, wie Sie sie/ihn typischerweise in der Schule erleben.

Die Schülerin/Der Schüler...	**1** trifft **gar nicht** zu	**2** trifft **wenig** zu	**3** trifft **etwas** zu	**4** trifft **grösstenteils** zu	**5** trifft **ganz genau** zu
... ist leistungsbereit.	○	○	○	○	○
... ist fleissig.	○	○	○	○	○
... ist verantwortungsbereit.	○	○	○	○	○
... arbeitet gut mit.	○	○	○	○	○
... arbeitet selbständig.	○	○	○	○	○
... zeigt ein angemessenes Konfliktverhalten.	○	○	○	○	○
... zeigt sich kooperativ.	○	○	○	○	○
... zeigt ein gutes Betragen.	○	○	○	○	○
... ist ordentlich.	○	○	○	○	○
... ist zuverlässig und sorgfältig.	○	○	○	○	○

Curriculum Vitae

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Education

University

02/2012:	Defense of PhD thesis with the title "The good character in German-speaking children and adolescents: Assessment, association with life satisfaction and role in specific life-domains"
10/2007 – 02/2012:	PhD student, Section on Personality and Assessment, Department of Psychology, University of Zurich, head: Prof. Dr. W. Ruch
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10/1999 – 07/2005:	Studies of psychology at University of Bielefeld, Germany

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12/1998:	A levels (Abitur)
02/1996 – 12/1998:	Secondary school (high school level, grades 11-13); Westfalen Kolleg Bielefeld, Germany
08/1992 – 01/1996:	Apprenticeship (German Telecom)
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Publications

Articles

Weber, M., & Ruch, W. (2012). The role of a good character in 12-year-old school children: Do character strengths matter in the classroom? *Child Indicators Research, 5,* 317-334. doi:10.1007/s12187-011-9128-0

Ruch, W., Proyer, R. T., & Weber, M. (2010). Humor as character strength among the elderly: Theoretical considerations. *Zeitschrift für Gerontologie und Geriatrie*, *43*, 8-12.

Ruch, W., Proyer, R. T., & Weber, M. (2010). Humor as character strength among the elderly: Empirical findings on age-related changes and its contribution to satisfaction with life. *Zeitschrift für Gerontologie und Geriatrie*, *43*, 13-18.

Ruch, W., Proyer, R. T., & Weber, M. (2010). Humor som karakterstyrke hos ældre: Teoretiske betragtninger [Humor as a character strengths among elderly: Theoretical considerations]. *Kognition & Pædagogik*, *75*, 54-63.

Weber, M., & Ruch, W. (2009). Das gute Leben bei Kindern und Jugendlichen [The good life of children and adolescents]. *Psychologie und Erziehung*, *35*, 21-39.

Articles – in press

Proyer, R. T., Sidler, N., Weber, M., & Ruch, W. (in press). A multi-method approach in studying the relation of strengths of character and vocational interests in adolescents. *International Journal of Educational and Vocational Guidance.* doi:10.1007/s10775-012-9223-x

Weber, M., & Ruch, W. (in press). The role of character strengths in adolescent romantic relationships: An initial study on partner selection and mates' life satisfaction. *Journal of Adolescence.* doi:10.1016/j.adolescence.2012.06.002

Weber, M., Ruch, W., & Huebner, E. S. (in press). Adaptation and initial validation of the German version of the Students' Life Satisfaction Scale (German SLSS). *European Journal of Psychological Assessment.* doi:10.1027/1015-5759/a000133

Articles – submitted

Ruch, W., Weber, M., Park, N., & Peterson, C. (2011). Character strengths in children and adolescents: Reliability and initial validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth). *Manuscript submitted for publication*.

Further writings

Weber, M. (2005). *Zum Zusammenhang von Persönlichkeit, kritischen Lebensereignissen und Lebenszufriedenheit* [On the relationship between personality, critical life-events, and life satisfaction] (Unpublished master's/diploma thesis). University of Bielefeld, Bielefeld, Germany.

Presentations at professional meetings

Weber, M., & Ruch, W. (2012, June). *Character strengths and partner selection in young people*. Paper presented at the 6th European Conference on Positive Psychology (ECPP), Moscow, Russia, 26.-29.06.2012.

Weber, M., & Ruch, W. (2012, June). *Positive psychology at school: The role of character strengths in the classroom*. Paper presented at the 6th European Conference on Positive Psychology (ECPP), Moscow, Russia, 26.-29.06.2012.

Höfer, S., Harzer, C., Renn, D., Weber, M., & Ruch, W. (2011, August). *International Well-being Index: Austria, Switzerland and Germany*. Paper presented at the 11th European Conference on Psychological Assessment (ECPA2011), Riga, Latvia, 31.08.-03.09.2011.

Ruch, W., Weber, M., Park, N., & Peterson, C. (2011, August). *Character strengths in children and adolescents: Reliability and validity of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth)*. Paper presented at the 11th European Conference on Psychological Assessment (ECPA2011), Riga, Latvia, 31.08.-03.09.2011.

Proyer, R. T., Sidler, N., Weber, M., & Ruch, W. (2011, September). *Berufliche Interessen und Charakterstärken: Zum Zusammenhang der RIASEC-Dimensionen und den Charakterstärken der Values-in-Action Klassifikation* [Vocational interests and character strengths: On the relationship between the RIASEC dimensions and character strengths from the VIA classification]. Paper presented at the 11th Arbeitstagung der Fachgruppe Differentielle Psychologie, Persönlichkeitspsychologie und Psychologische Diagnostik, Saarbrücken, Deutschland, 26.-28.09.2011.

Weber, M. (2009, August). *Where did earlier studies investigating genetic and environmental influences on humor fail? Answers of a twin study using the 3WD*. In Samson, A. (Chair), & Weber, M. (Chair) (2009, August). Current research on humor and laughter. Paper symposium conducted at the 11th Congress of the Swiss Society of Psychology (SSP), Neuchatel, Switzerland, 19.-20.08.2009.

Weber, M. (2009, September). *Der VIA-Youth für junge Menschen* [The VIA-Youth for young people]. Paper presented at the 4th Zürcher Diagnostik-Kongress, Zürich, Schweiz, 09.-10.09.2009.

Weber, M. (2008, June). *A twin study on humour appreciation: The importance of separating structure and content*. Paper presented at 8th International Summer School and Symposium on Humour and Laughter: Theory, Research and Applications, Galati, Romania, 23.-28.06.2008.

Harzer, C., Beermann, U., Weber, M., & Ruch, W. (2008, June). *Emotion, personality, humour production, thought action repertoire, and affectivity*. Paper presented at the 8th International Summer School and Symposium on Humour and Laughter: Theory, Research and Applications, Galati, Romania, 23.-28.06.2008.

Weber, M., Ruch, W., Park, N., & Peterson, C. (2008, July). *Assessment of character strengths among adolescents: German adaptation of the VIA-Youth*. Paper presented at the 4th European Conference on Positive Psychology (ECPP), Rijeka/Opatija, Croatia, 01.-04.07.2008.

Weber, M. (2008, August). *Der VIA-Youth: Stärken und Tugenden bei Kindern und Jugendlichen* [VIA-Youth: Strengths and virtues in children and adolescents]. Paper presented at the "BerTa08" Beratungstages der Schweizerischen Arbeitsgemeinschaft für akademische Berufs- und Studienberatung AGAB, Universität Zürich, Zürich, Schweiz, 26.08.2008.

Weber, M. (2007, September). *On the relationship between personality, life events, and life satisfaction*. In W. Ruch (Chair), Positive Psychology: Traits and instruments. Symposium conducted at the 10th Congress of the Swiss Society of Psychology (SSP), Zurich, Switzerland, 13.-14.09.2007.

Posters at professional meetings

Weber, M., Ruch, W., Park, N., & Peterson, C. (2012, June). *Psychometric properties and correlates of the German Values in Action Inventory of Strengths for Youth (German VIA-Youth)*. Poster presented at the 6th European Conference on Positive Psychology (ECPP), Moscow, Russia, 26.-29.06.2012.

Weber, M., & Ruch, W. (2012, April). *Humor in TV ads: Which individuals like which humorous TV ads?* Poster presented at the 25th Annual Conference of the Association for Applied and Therapeutic Humor (AATH), Chicago, Illinois, USA, April 19-22.

Wellenzohn, S., Stamm, S., Weber, M., & Ruch, W. (2011, July). *Character strengths and satisfaction with life in youth organizations.* Poster presented at the *Second World Congress on Positive Psychology*, Philadelphia, USA, July 23-26.

Weber, M., & Ruch, W. (2011, May). *The role of the good character at school.* Poster presented at the 7th Kongress für Studierende und Doktorierende (LiMaDoKo) am Psychologischen Institut der Universität Zürich, Zürich, Schweiz, 26.05.2011.

Weber, M., & Ruch, W. (2010, June). *The significance of humor as character strength in adolescent romantic relationships*. Poster presented at the 10th International Summer School and Symposium on Humour and Laughter, University of Zurich, Switzerland, July 5-10, 2010.

Stamm, S., Wellenzohn, S. Weber, M., & Ruch, W. (2010, May). *Charakterstärken und Jugendverbände: Ein Vergleich der Charakterstärken von Jugendverbandsmitgliedern mit Nicht-Jugendverbandsmitgliedern* [Character strengths and youth organizations: A comparison of participating and non-participating adolescents]. Poster presented at the 6th LizentiandInnen- und Doktorierendenkongress (LiDoKo) des Psychologischen Instituts der Universität Zürich, Zürich, Schweiz, 26.05.2010.

Weber, M., Ruch, W., Park, N., & Peterson, C. (2009, September). *Charakterstärken-erfassung bei Kindern und Jugendlichen: Das VIA-Youth* [Assessment of character strengths in children and adolescents]. Poster presented at the 10th Arbeitstagung der Fachgruppe Differentielle Psychologie, Persönlichkeitspsychologie und Psychologische Diagnostik, Landau, Deutschland, 28.-30.09.2009.

Siegrist, P., Weber, M., & Ruch, W. (2009, August). *Personality and investment behavior of mutual fund managers: Do narcissism, extraversion, sensation seeking and over-claiming matter?* Poster presented at the 11th Congress of the Swiss Society of Psychology (SSP), Neuchatel, Switzerland, 19.-20.08.2009.

Weber, M., Ruch, W., Park, N., & Peterson, C. (2009, August). *Character strengths in children and adolescents: The German adaptation of the VIA-Youth*. Poster presented at the 11th Congress of the Swiss Society of Psychology (SSP), Neuchatel, Switzerland, 19.-20.08.2009.

Wellenzohn, S., Hofmann, J., Weber, M., & Ruch, W. (2009, August). *Birds of a feather flock together - or opposites attract? The role of similarity in character strengths of adolescents in romantic relationships*. Poster presented at the 11th Congress of the Swiss Society of Psychology (SSP), Neuchatel, Switzerland, 19.-20.08.2009.

Tschupp, S., Flisch, R., Weber, M., & Ruch, W. (2009, May). *Gleich und gleich gesellt sich gern oder Gegensätze ziehen sich an? Eine Studie zur Rolle von Charakterstärken bei jugendlichen Paaren* [Birds of a feather flock together *or* opposites attract? A study on the role of character strengths in adolescent' couples]. Poster presented at the 5th LizentiandInnen- und Doktorierendenkongress (LiDoKo) des Psychologischen Instituts der Universität Zürich, Zürich, Schweiz, 27.05.2009.

Hofmann, J., Wellenzohn, S., Lischer, H., Ture, M., Weber, M., & Ruch, W. (2008, September). *Macht Ähnlichkeit Jugendliche glücklich? Eine Studie zu Charakterstärken in Liebesbeziehungen bei Jugendlichen* [Does similarity lead to happiness? A study on character strengths in adolescent' romantic relationships].

Poster presented at the 4th LizentiandInnen- und Doktorierendenkongress (LiDoKo) des Psychologischen Instituts der Universität Zürich, Zürich, Schweiz, 17.09.2008.

Weber, M., & Ruch, W. (2008, September). *Ein Charakterstärkeninventar für Kinder und Jugendliche: Der VIA-Youth* [An inventory on character strengths in children and adolescents: The VIA-Youth]. Poster presented at the 4th LizentiandInnen- und Doktorierendenkongress (LiDoKo) des Psychologischen Instituts der Universität Zürich, Zürich, Schweiz, 17.09.2008.

Weber, M., & Ruch, W. (2008, July). *The role of similarity in character strengths profiles of juveniles and adolescents in romantic relationships*. Poster presented at the 4th European Conference on Positive Psychology (ECPP), Rijeka/Opatija, Croatia, 01.-04.07.2008.

Weber, M., Ruch, W., Angleitner, A., Riemann, R., & Spinath, F. M. (2007, July). *Genetic and environmental influences on humor appreciation*. Poster presented at the XIII. meeting of the International Society for the Study of Individual Differences (ISSID), Giessen, Germany, 22.-27.07.2007.

Weber, M. (2006, September). *Die Fünf-Faktoren-Theorie der Persönlichkeit: Beziehungen von Basistendenzen und externalen Einflüssen zu den charakteristischen Anpassungsformen* [The five-factor theory of personality: Associations between basic tendencies, external influences, and characteristic adaptations]. Poster presented at the 45th Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Nürnberg, Deutschland, 17.-21.09.2006.

Invited talks

Weber, M. (2011, April). *Positive Psychologie bei Kindern und Jugendlichen: Die Rolle von Charakterstärken* [Positive psychology in children and adolescents: The role of character strengths]. Talk at the Kolloquium zu aktuellen Forschungsthemen (Mittelbaukolloquium) des Psychologischen Instituts der Universität Zürich. Zürich, Schweiz, 06.04.2011.

Weber, M. (2008, September). *Einführung in Testverfahren: Tests in Theorie und Praxis* [Introduction in psychological assessment: Theory and practice]. Talk at the Fortbildungsveranstaltungsreihe zu Testverfahren bei Kommunikationsstörungen, Abteilung für Phoniatrie, Klinische Logopädie des Universitätsspitals Zürich, Zürich, Schweiz, 23.09.2008.

Weber, M. (2007, Oktober). *Zwillingsforschung trifft auf Humorforschung* [Twin research meets humor research]. Talk at the Rotary Club Dübendorf, Dübendorf, Schweiz, 10.10.2007.

Organized symposia

Samson, A. (Chair), & Weber, M. (Chair) (2009, July). *Current research on humor and laughter*. Paper symposium conducted at the 11th Congress of the Swiss Society of Psychology (SSP), Neuchatel, Switzerland, 19.-20.08.2009.

Academic teaching

- Seminar: Personality and Intelligence (bachelor level): spring 2008, 2009, 2010, 2011, 2012
- Seminar: Personality and Intelligence (master level): spring 2008
- Seminar: Assessment in School Psychology and Career Counseling (master level): spring 2009, 2010
- Seminar: Search, Evaluation, and Presentation of Psychological Literature (bachelor level): fall 2005, spring 2006

- Research Seminar (master level): fall 2006, 2007, 2008; spring 2007, 2008, 2009
- Seminar on Psychological Experiments (bachelor level): spring 2008, 2009
- Project group: Personality and Intelligence (supervision of master's theses; master level): fall 2007, 2008, 2009, 2010; spring 2008, 2010
- Project group: Positive Psychology in Children and Adolescents (supervision of master's theses; master level): fall 2008, 2009, 2010, 2011; spring 2009, 2010, 2011, 2012

Supervision of students' theses

- Supervision of non-empirical bachelor theses (fall 2010, 2011; spring 2009, 2010, 2011, 2012, in total 14 bachelor theses)

Supervision of master's theses (all empirical)

- 2011/2012: Die Bedeutung von positiven und negativen Determinanten bei der Erklärung von jugendlicher Lebenszufriedenheit [The impact of positive and negative determinants on young people's life satisfaction]
- 2010/2011: Der Zusammenhang von impliziten Theorien, Charakterstärken, Selbstwirksamkeit und Lebenszufriedenheit [On the relationship between implicit theories, character strengths, self-efficacy, and life satisfaction]
- 2010/2011: Zum Zusammenhang von Orientierungen zum Glück bei Kindern mit elterlichen Lebens- und Erziehungsstilen [On the relationship between orientations to happiness in children, orientations to happiness in parents, and parenting styles]
- 2010/2011: Humor von Witzen und Cartoons und Humor in der Fernsehwerbung: Ein Vergleich [Humor of jokes and cartoons in TV ads: A comparison]
- 2009/2010: Charakterstärken in Jugendverbänden: Auswirkungen einer Jugendverbandsmitgliedschaft auf die Charakterstärken von Kindern und Jugendlichen [Character strengths in youth organizations: The impact of participation on character strengths of children and adolescents]
- 2007/2008: Persönlichkeit und Anlagestil professioneller Investoren: Die Bedeutung von Narzissmus, Extraversion, Sensation Seeking und Overclaiming [Personality and investment style of investors: The role of narcissism, extraversion, sensation seeking, and overclaiming]